Check List the journal of biodiversity data

ANNOTATED LIST OF SPECIES

Check List 17 (6): 1681–1714
https://doi.org/10.15560/17.6.1681

PENSOFT

Fishes of the Mfimi River in the central Congo basin of the Democratic Republic of Congo. Kasai ecoregion or part of the Cuvette Centrale?

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Abstract

Despite the cultural and economic importance of fisheries to communities in the region, the Mfimi is one of the least well-documented river systems in the central Congo basin. Here we present a preliminary listing of species collected during two surveys sampling 35 sites along the main channel, in major tributaries, and in some marginal habitats. A total of 2195 specimens representing 141 species were collected and archived at the American Museum of Natural History, New York, and in the teaching collections of the University of Kinshasa. Five species are considered as potentially new to science, and range extensions of numerous species into the Mfimi are recorded. Based on the data presented we conclude that the fish communities in the Mfimi share affinities with those of the Cuvette Centrale to the north, rather than the Kasai basin with which the river is currently connected via an inflow at the Kwa-Kasai junction.

Keywords

Central Africa, fish diversity, biogeographic affinities

Academic editor: Eva Decru | Received 25 May 2021 | Accepted 27 October 2021 | Published 15 December 2021

Citation: Stiassny MLJ, Alter SE, Liyandja TLD, Modimo MY, Iyaba RJCM (2021) Fishes of the Mfimi River in the central Congo basin of the Democratic Republic of Congo. Kasai ecoregion or part of the Cuvette Centrale? Check List 17 (6): 1681–1714. https://doi.org/10.15560/17.6.1681

Introduction

Due to its current connection with the Kwa-Kasai, the Mfimi/Lukenie River (Fig. 1) is considered part of the large southern Kasai basin rather than of the adjacent Cuvette Centrale located to the north (Thieme et al. 2005; Abell et al. 2008; Brummett et al. 2011). Fishing is the primary economic activity throughout the region providing the main source of protein for local communities, as well as income through sales to the major regional population centers of Kinshasa, Bandundu and Kikwit. The Inspectorate of Agriculture (CARG 2010)

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reports a production of about 180 t of fresh, 42 t of smoked, and 72 t of dried fish captured by over 2000 fishers throughout the region each year. Surprisingly, given such heavy reliance on fishing, this is among the least well-documented parts of the entire Congo basin (Thieme et al. 2005). No ichthyological publications exist for the Mfimi (or Lukenie, or Lake Mai Ndombe), and its species composition is so poorly documented that hypotheses of the affinities of its ichthyofauna, and consequently that of the central Congo's largest lake, Lake Mai Ndombe, remain speculative (Thieme et al. 2005). To remediate this near-total lack of information we provide a list of fishes collected during two surveys in the Mfimi basin, made during August 2015 and July 2018, at the height of the main dry season. Collections were focused on 29 sites spanning the main channel and tributaries from downstream of the riverside settlement of Nioki to the town of Kutu at the outflow of Lake Mai Ndombe, upstream of which the river is renamed the Lukenie. Where possible, given limited road access across the region, six collections were also made in three small, forested tributaries, in an attempt at sampling a range of habitats within the basin (Figs. 1, 2). The surveyed area is situated at about 300 m above sea level, with a more-or-less continuous low relief cut by numerous meandering tributaries of the Mfimi main channel, often with extensive seasonally flooded, or permanently inundated, riparian zones, grassy wetlands, and shallow lakes. The climate is humid and tropical, with a main dry (mid-May through August) and rainy season (September through mid-January), and an annual temperature ranging from 25–30 °C.

The list we provide here is undoubtedly incomplete and much additional collecting, particularly in marginal habitats, remains to be undertaken. However, given the current paucity of information on the fishes of this system, we hope that this checklist will serve as a useful baseline for ongoing efforts to fully document the composition and biogeographical affinities of the fishes of the Mfimi-Lukenie River basin and its affluent lake, Mai Ndombe.

Study Area

Our survey includes collections made at 35 sites which, for convenience of representation, are grouped into eight broadly defined hydrological regions within the Mfimi basin (Figs. 1, 2, Table 1). These are: Group 1, 11 sites along the main channel of the Mfimi River from downstream of Nioki to the settlement of Kutu at the outflow of Lake Mai Ndombe, just upstream of which the river is renamed the Lukenie; Group 2, eight sites along the Molibampe River (appearing as the Montaba River on some maps), a large right bank tributary entering the Mfimi at Nioki. The Molibampe consists of a convoluted channel passing through numerous shallow, flooded expanses fringed with grasses (*Echinochloa*) and sedges (Cyperaceae); Group 3, three sites along the Tshe River, the first large right bank tributary of the Mfimi upstream of Nioki. Although considerably smaller than the Molibampe, the Tshe also has a variable channel width, as it meanders through numerous expanses of flooded grasses; Group 4, three sites in Vainya Lake. This shallow, grass fringed lake is approximately 1 km in length, and located about 3 km due west of Nioki ; Group 5, four sites along the Lomomo River, a small right bank tributary entering the Mfimi near the fishing village of Kilako; Group 6, two sites in Mingomi stream, a small forested, blackwater stream near Ngenza Village some 12 km, by road, northwest of Nioki; Group

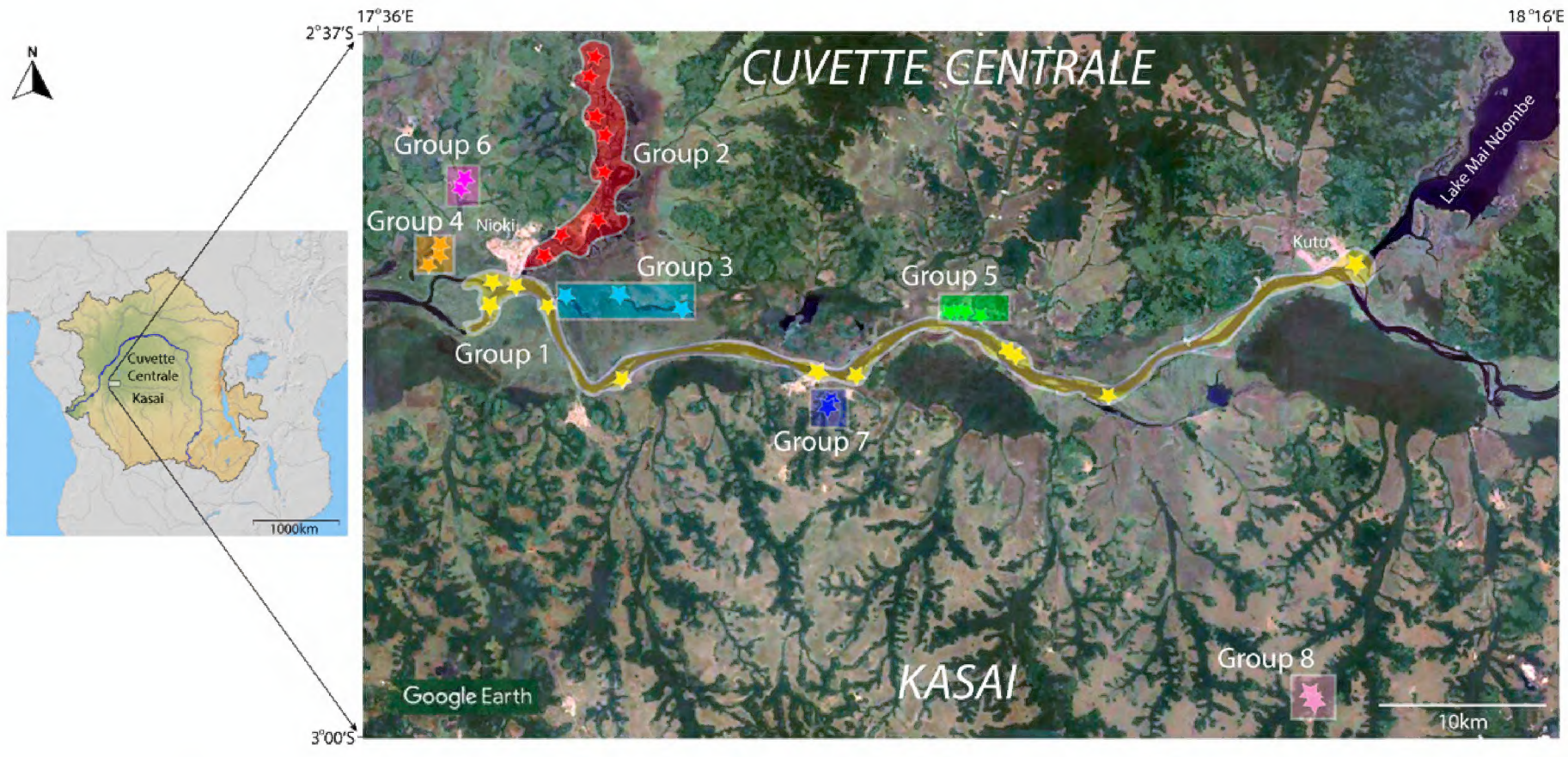

Figure 1. Map of sampled region with stars indicating individual sites within eight color coded regions: Group 1 (yellow), Mfimi River main channel. Group 2 (red), Molibampe River. Group 3 (light blue), Tshe River. Group 4 (orange), Vainya Lake. Group 5 (green), Lomomo River. Group 6 (purple), Mingomi stream. Group 7 (blue), Munganza River. Group 8 (pink), Ndzaa River. Inset on left indicates the location of the collection sites within the Congo basin.

Figure 2. Selected collection sites, representing each of the eight delimited regions. **A.** Mfimi main channel near Mongobele Bondjon (Group 1). **B.** Molibampe River, wide channel through dense grasses (Group 2). **C.** Tshe River, near confluence with Mfimi (Group 3). **D.** Vainya Lake (Group 4). **E.** Lomomo River, near Kilako Village (Group 5). **F.** Mingomi stream, near Ngenza Village (Group 6). **G.** Munganza River, near Mongobele Mbongo Village (Group 7). **H.** Ndzaa River, near Mushimine Village (Group 8).

Table 1. Coordinates and data for sampled sites within hydrological groupings 1–8.

Group	Site coordinates	River type	Approximate channel width at site
1 - Main channel of Mfimi River	02°44′35.49″S, 017°42′25.22″E	Principle river	540 m
	02°44′10.87″S, 017°40′47.46″E	Principle river	500 m
	02°44′14.90″S, 017°40′07.49″E	Principle river	410 m
	02°44′35.49″S, 017°42′25.22″E	Principle river	560 m
	02°47′26.30″S, 017°44′49.45″E	Principle river	650 m
	02°47′20.88″S, 017°51′35.28″E	Principle river	530 m
	02°47′28.92″S, 017°52 32.22″E	Principle river	670 m
	02°46′45.21″S, 017°58′04.57″E	Principle river	430 m
	02°46′49.17″S, 017°58′09.79″E	Principle river	430 m
	02°47′55.73″S, 018°00′45.09″E	Principle river	450 m
	02°43′27.91″S, 018°09′42.34″E	Principle river	380 m
2 - Molibampe River	02°43′22.0″S, 017°41′55.7″E	Large, right bank tributary	390 m
	02°42′22.98″S, 017°42′50.44″E	Large, right bank tributary	31 m
	02°42′08.43″S, 017°43′49.23″E	Large, right bank tributary	80 m
	02°40′18.96″S, 017°44′12.12″E	Large, right bank tributary	190 m
	02°39′0.48″S, 017°44′5.16″E	Large, right bank tributary	120 m
	02°38′53.21″S, 017°43′59.30″E	Large, right bank tributary	70 m
	02°36′55.86″S, 017°43′45.30″E	Large, right bank tributary	45 m
	02°36′52.44″S, 017°43′40.30″E	Large, right bank tributary	125 m
3 - Tshe River	02°44′39.98″S, 017°42′40.76″E	Medium size, right bank tributary	140 m
	02°44′42.01″S, 017°44′33.87″E	Medium size, right bank tributary	70 m
	02°45′05.94″S, 017°46′38.30″E	Medium size, right bank tributary	160 m
4 - Vainya Lake	02°43′14.41″S, 017°38′06.19″E	Shallow lake	1 km at longest point
	02°43′10.35″S, 017°38′35.96″E	Shallow lake	1 km at longest point
	02°43′1.62″S, 017°38′31.50″E	Shallow lake	1 km at longest point
5 - Lomomo River	02°45′19.74″S, 017°55′55.80″E	Small, right bank tributary	40 m
	02°45′14.94″S, 017°55′58.03″E	Small, right bank tributary	60 m
	02°45′14.90″S, 017°55′58.01″E	Small, right bank tributary	60 m
	02°45′16.20″S, 017°56′6.66″E	Small, right bank tributary	30 m
6 - Mingomi Stream	02°40′45.29″S, 017°39′16.48″E	Small, forested stream	2 m
	02°40′48.96″S, 017°39′16.14″E	Small, forested stream	2 m
7 - Munganza River	02°47′58.26″S, 017°51′51.12″E	Small, forested left bank tributary	2 m
	02°47′59.64″S, 017°51′50.70″E	Small, forested left bank tributary	1 m
8 - Ndzaa River	02°58′25.65″S, 018°7′55.19″E	Small, forested left bank tributary	2 m
	02°58′25.0″8S, 018°7′55.26″E	Small, forested left bank tributary	3 m

7, two sites along the Munganza River, a small, forested, left bank tributary, downstream of Mongobele Village; Group 8, two sites in the Ndzaa River (appearing as the Ndjua River on some maps), a forested, left bank tributary entering the Mfimi near Kutu. Many of these collections were made with the assistance of local fishers using traditional fishing gear (Fig. 3). Additional samples were purchased at the two main fish markets in Nioki and are noted as such in Table 2. All collections were made during August 2015 and July 2018 at the height of the main dry season in the region (mid-May to the end of August). There are very few roads in the entire basin and access to all sites, except the Mingomi stream (which was accessed by motorbike), was by water in motorized, or paddled, wooden pirogues (canoes).

Methods

Standard fishing sampling techniques were employed (Lang and Baldwin 1996), and these included dip nets, cast nets, seine nets, and some traditional fishing gear (Fig. 3). In isolated locations, with permission, the controlled use of the isoflavone ichthyocide Rotenone, was employed to sample species not readily captured using other methods (Robertson and Smith-Vaniz 2008). Fishes were euthanized in accordance with recommended guidelines for use of fishes in research (Bennett et al. 2016). Prior to preservation a small piece of muscle or fin was taken from the right side of one or more representative of each species, or entire fishes were preserved in 95% ethanol. Fishes and tissues are housed in the Ichthyology Department of the American Museum of Natural History (AMNH), New York, with associated data accessible at https://emu-prod.amnh.org/db/emuwebamnh/index.php. A representative collection was also accessioned into the ichthyological teaching collections of the University of Kinshasa. All species identifications were made at the AMNH utilizing a combination of the publications cited in the references section of this paper. In addition, the following two online resources were consulted: http://mormyrids.myspecies.info/en/taxonomy/term/430 and http://www.poissons-afrique.ird.fr/drupal/alestidae (Paugy et al. 2019). Photographs of representatives of each species post-preservation were taken in an Ortech

Figure 3. Sampling equipment commonly used by fishers throughout the region. **A.** Fish barrages. **B.** Mosquito net seines. **C.** Gill nets, **D.** Scoop baskets.

Professional Photobox Plus (Model 1419) with a Nikon D200 camera with a 60 mm f/2.8 AFMicro-Nikkor lens, with a 1 cm scale in field. With a few modifications noted in the results section, taxonomic nomenclature and classification follows Eschmeyer's Catalogue of Fishes (Fricke et al. 2021). Specimens were collected and exported with permission of the Congolese Ministère de l'Agriculture, Secrètariat General à l'Agriculture, Pêche et Elevage, Direction des Pêches (permits 037/DP/SG/AGRIPEL/2016 and 03/DP/SG/PEL/2018, both on file at AMNH).

Results

We sampled 35 sites and for ease of representation these are grouped into eight hydrological regions (Fig.1, Table 1), and collected a total of 2195 specimens comprising 141 species in 25 families and 13 orders. Five species in the collection are considered as potentially new to science, and these are discussed first in the text below and illustrated in Figure 4. Due to the high number of species collected in the surveyed region we limit information on identification to a representative of each of the 69 genera represented in the collection but for a few, where taxonomic issues necessitate, we include discussion of more than one congener. A full list of species with their distribution among sites is indicated in columns 1–8 and in column 9 for specimens purchased at local markets (Table 2).

Undescribed Taxa

Mormyridae

***Marcusenius* aff. *angolensis* (Boulenger, 1905)**
Figure 4A

Material examined. DEMOCRATIC REPUBLIC OF CONGO – **Mai-Ndombe Province** • Molibampe River at Mabala; 02°42′14.90″S, 017°42′50.44″E; VIII.2015; Monsembula et al. leg; 1, 120.5 mm, AMNH 269816 • 1, 140.5 mm; Lomomo River, near confluence with Mfimi; 02°45′19.74″S, 017°55′55.80″E; 25.VII.2018; Stiassny et al. leg.; 1, 140.5 mm, AMNH 274038.

Identification. Bulbous submental appendage present and extending beyond the end of the upper jaw. Twelve circumpeduncular scale rows. In a revision of the *Marcusenius macrolepidotus* species complex in southern and eastern Africa, Kramer et al. (2007) restricted *M. macrolepidotus* to specimens from the lower Zambezi River system in Mozambique and described or resurrected several species for populations in other southern and eastern rivers. They provided a key to the eastern and southern species and included *Marcusenius angolensis,* currently known only from the Cuanza system in Angola. Our specimens, and additional specimens from the western Congo basin, appear closest to *M. angolensis* (dorsal-fin rays 26–28, anal-fin rays 32–33 vs. 20–26 and 26–31 in *M. macrolepidotus* and other southern and eastern African species), but they appear to differ in several

Table 2. List of species from the Mfimi River basin, organized by taxonomic group (following Fricke et al. 2021). Species in bold underscore are known also to occur in localities in the Cuvette Centrale and/or the main channel of the Congo River but are not reported from the Kasai basin. Samples collected at grouped sites in columns 1–8, and market specimens in column 9. Representative catalogue numbers are given in column 10.

	GP1	GP2	GP3	GP4	GP5	GP6	GP7	GP8	Market	
	Mfimi	Moli-bampe	Tshe	Vainya	Lomomo	Mingo-ma	Mun-ganza	Ndzaa	Nioki	Representative Vouchers (AMNH)
LEPIDOSIRENIFORMES										
Protopteridae										
Protopterus dolloi Boulenger, 1900		X								274703
POLYPTERIFORMES										
Polypteridae										
Polypterus delhezi Boulenger, 1898			X							274698
Polypterus retropinnis Vaillant, 1899	X				X			X		274700, 274701
Polypterus weeksii Boulenger, 1898	X									269803, 274702
OSTEOGLOSSIFORMES										
Pantodontidae										
Pantodon buchholzi Peters, 1876	X						X	X	X	274661, 274662
Notopteridae										
Papyrocranus congoensis (Nichols & La Monte, 1932)				X	X			X		274649, 274652
Xenomystus nigri (Günther, 1868)	X	X	X	X	X			X	X	269844, 274656
Mormyridae										
Cyphomyrus psittacus (Boulenger, 1897)	X		X							274021, 274023
Cyphomyrus plagiostoma (Boulenger, 1898)			X							274080
Gnathonemus echidnorhynchus Pellegrin, 1924			X	X		X				274024, 274025
Gnathonemus petersii (Günther, 1862)	X	X	X		X					269813, 274028
Marcusenius greshoffii (Schilthuis, 1891)	X		X							269814, 274031
Marcusenius kutuensis (Boulenger, 1899)	X		X						X	274034, 274035
Marcusenius leopoldianus (Boulenger, 1899)	X				X	X				274037, 274036
Marcusenius aff. *angolensis* (Peters, 1852)		X			X					269816, 274038
Marcusenius moorii (Günther, 1867)	X	X	X	X	X	X			X	269821, 274046
Marcusenius schilthuisiae (Boulenger, 1899)	X		X			X				274045, 274047
Marcusenius stanleyanus (Boulenger, 1897)	X		X							274050, 274051
Mormyrops anguilloides (Linnaeus, 1758)	X	X	X		X				X	269824, 274057
Mormyrops nigricans Boulenger, 1899			X							274058
Mormyrus ovis Boulenger, 1898	X									276059, 274060
Myomyrus macrops Boulenger, 1914	X		X							274062, 274063
Petrocephalus balayi Sauvage, 1883		X						X		274064, 274065
Petrocephalus christyi Boulenger, 1920			X							274066
Petrocephalus* cf. *congicus David & Poll, 1937	X	X								269827, 269830
Petrocephalus microphthalmus Pellegrin, 1909	X	X	X			X			X	269831, 274068
Petrocephalus odzalaensis Lavoué, Sullivan & Arnegard, 2010					X			X		274069, 274070
Petrocephalus sauvagii (Boulenger, 1887)	X									269838
Petrocephalus valentini Lavoué, Sullivan & Arnegard, 2010	X				X					274073, 274075
Pollimyrus maculipinnis (Nichols & La Monte, 1934)	X		X						X	274077, 274078
Pollimyrus nigripinnis (Boulenger, 1899)	X	X								269840, 269841
Pollimyrus cf. *osborni* (Nichols & Griscom, 1917)	X									274079
Stomatorhinus kununguensis Poll, 1945			X		X					274081, 274082
Stomatorhinus puncticulatus Boulenger, 1899			X							274083
CLUPEIFORMES										
Clupeidae										
Microthrissa congica (Regan, 1917)	X	X	X							269808, 269809
Nannothrissa stewarti Poll & Roberts, 1976	X		X						X	269804, 269806

	GP1	GP2	GP3	GP4	GP5	GP6	GP7	GP8	Market	
	Mfimi	Moli-bampe	Tshe	Vainya	Lomomo	Mingo-ma	Mun-ganza	Ndzaa	Nioki	Representative Vouchers (AMNH)
Potamothrissa obtusirostis (Boulenger 1909)	X				X				X	274745, 274748
GONORHYNCHIFORMES										
Phractolaemidae										
Phractolaemus ansorgii Boulenger 1901		X						X		274663, 274664
CYPRINIFORMES										
Cyprinidae										
Enteromius hulstaerti (Poll 1945)							X			274740
Enteromius cf. *hulstaerti* (Poll 1945)							X			274741
Enteromius cf. *miolepis* (Boulenger 1902)								X		274742
CHARACIFORMES										
Citharinidae										
Citharinus gibbosus Boulenger 1899	X	X	X						X	269870, 274708
Distichodontidae										
Distichodus altus Boulenger 1899	X				X				X	269875, 274712
Distichodus antonii Schilthuis 1891	X									269876
Distichodus atroventralis Boulenger 1898	X		X		X				X	274713, 274715
Distichodus decemmaculatus Pellegrin 1926			X							269880
Distichodus lusosso Schilthuis 1891	X									269881
Distichodus noboli Boulenger 1899	X	X	X		X		X		X	274719, 274721
Distichodus sexfasciatus Boulenger 1897	X	X							X	274722, 274725
Ichthyborus ornatus (Boulenger 1899)	X									274732
Mesoborus crocodilus Pellegrin 1900	X									274733
Monostichodus lootensi (Poll & Daget 1968)	X		X		X					274726, 274727
Monostichodus mesmaekersi (Poll 1959)	X		X		X		X			274728, 274731
Nannocharax macropterus Pellegrin 1926	X									274734
Nannocharax schoutedeni Poll 1939	X									269893
Neolebias philippei Poll & Gosse 1963			X			X				269989, 274735
Neolebias trilineatus Boulenger 1899	X									274736
Phago boulengeri Schilthuis 1891	X	X			X					274737, 274739
Hepsetidae										
Hepsetus microlepis (Boulenger 1901)		X		X						269864, 274776
Alestidae										
Alestes liebrechtsii Boulenger 1898									X	274749
Alestopetersius hilgendorfi (Boulenger 1899)								X		274750
Alestopetersius leopoldianus (Boulenger 1899)			X		X					269850, 274751
Alestopetersius nigropterus Poll 1967	X	X	X	X	X				X	269848, 274758
Brachypetersius altus (Boulenger 1899)	X				X		X		X	274763, 274764
Brycinus bimaculatus (Boulenger 1899)		X			X					269860, 274767
Brycinus grandisquamis (Boulenger 1899)					X					274768, 274769
Brycinus macrolepidotus Valenciennes 1850	X									274770
Bryconaethiops boulengeri Pellegrin 1900	X									274771
Bryconaethiops microstoma Günther 1873	X								X	274772, 274773
Clupeocharax schoutedeni Pellegrin 1926	X		X		X					269862, 274775
Micralestes humilis Boulenger 1899									X	274777
Micralestes stormsi Boulenger 1902	X									274778
Rhabdalestes aeratus Stiassny & Schaefer 2005	X	X	X	X						269868, 274787
Phenacogrammus aurantiacus (Pellegrin 1930)	X							X	X	274780, 274779
Phenacogrammus interruptus (Boulenger 1899)	X				X		X		X	274782, 274784
Phenacogrammus sp. 1								X		274785
Phenacogrammus sp. 2								X		274786

	GP1	GP2	GP3	GP4	GP5	GP6	GP7	GP8	Market	
	Mfimi	Moli-bampe	Tshe	Vainya	Lomomo	Mingo-ma	Mun-ganza	Ndzaa	Nioki	Representative Vouchers (AMNH)
SILURIFORMES										
Clariidae										
Channallabes apus (Günther 1873)	X	X	X	X		X			X	269898, 274791
Clariallabes centralis (Poll & Lambert 1958)								X		274794
Clariallabes melas (Boulenger 1887)	X			X						269900, 274795
Clariallabes variabilis Pellegrin 1926		X		X						274796, 274797
Clarias angolensis Steindachner 1866						X		X		274798, 274799
Clarias buthupogon Sauvage 1879		X	X		X					274800, 274802
Clarias camerunensis Lönnberg 1895	X	X						X		269901, 274803
Clarias gabonensis Günther 1867		X								274805
Clarias pachynema Boulenger 1903	X					X		X		269904, 274807
Clarias theodorae Weber 1897	X		X							269906, 269907
Dolichallabes microphthalmus Poll 1942			X							274789
Amphiliidae										
Belonoglanis tenuis Boulenger 1902	X				X					274084, 274086
Malapteruridae										
Malapterurus monsembeensis Roberts 2000	X									274087
Malapterurus melanochir Norris 2002	X									269915
Malapterurus microstoma Poll & Gosse 1969								X		274088
Paradoxoglanis caudovittatus Norris 2002								X		274089, 274090
Mochokidae										
Synodontis angelicus Schilthuis 1891	X						X		X	274091, 274092
Synodontis decorus Boulenger 1899	X									274093
Synodontis flavitaeniatus Boulenger 1919	X		X						X	269917, 274095
Synodontis greshoffi Schilthuis 1891	X		X	X	X		X		X	269922, 274603
Synodontis nigriventris David 1936	X	X								269919, 274604
Synodontis pleurops Boulenger 1897	X						X			274605, 274606
Synodontis robertsi Poll 1974	X									274607, 274608
Synodontis schoutedeni David 1936			X							274609
Synodontis sp. "Tshe"			X							274611
Claroteidae										
Auchenoglanis occidentalis (Valenciennes 1840)	X									269910
Chrysichthys cranchii (Leach 1818)		X	X							274614, 274615
Chrysichthys habereri Steindachner 1912	X		X				X			274616, 274618
Chrysichthys punctatus Boulenger 1899	X	X	X		X				X	274620, 274625
Notoglanidium macrostoma (Pellegrin 1909)	X		X					X	X	269909, 274612
Parauchenoglanis punctatus (Boulenger 1902)	X									274626
Schilbeidae										
Parailia congica Boulenger 1899	X	X			X		X		X	274631, 274633
Pareutropius debauwi (Boulenger 1900)	X				X		X	X		274636, 274639
Schilbe congensis (Leach 1818)	X									274640, 274641
Schilbe marmoratus Boulenger 1911	X	X	X		X		X			274643, 274647
Schilbe yangambianus (Poll 1954)								X		274648
SYNBRANCHIFORMES										
Mastacembelidae										
Mastacembelus greshoffi Boulenger 1901	X		X	X				X	X	274672, 274674
ANABANTIFORMES										
Anabantidae										
Ctenopoma acutirostre Pellegrin 1899	X								X	269975, 274680
Ctenopoma gabonense Günther 1896	X									274681

	GP1	GP2	GP3	GP4	GP5	GP6	GP7	GP8	Market	
	Mfimi	Moli-bampe	Tshe	Vainya	Lomomo	Mingo-ma	Mun-ganza	Ndzaa	Nioki	Representative Vouchers (AMNH)
Ctenopoma nigropannosum Reichenow 1875	X	X	X	X		X		X		269979, 274685
Ctenopoma ocellatum Pellegrin 1899	X									269980
Ctenopoma weeksii Boulenger 1896	X								X	269981, 274687
Microctenopoma ansorgii (Boulenger 1912)	X		X			X		X	X	269986, 274689
Microctenopoma congicum (Boulengern1887)			X							269982
Microctenopoma fasciolatum (Boulenger 1899)	X			X		X		X	X	274693, 274696
Microctenopoma nanum	X									274697
Channidae										
Parachanna insignis (Sauvage 1884)	X		X	X						274704, 274707
Parachanna obscura (Günther 1861)		X	X							269935, 269932
CICHLIFORMES										
Cichlidae										
Congochromis dimidiatus (Pellegrin 1900)	X		X							269936, 269947
Congochromis sabinae (Lamboj 2005)	X		X			X	X	X	X	274812, 274814
Coptodon congica (Poll & Thys van den Audenaerde 1960)	X	X		X	X					269987, 274818
Hemichromis elongatus (Guichenot 1861)	X	X		X		X				274820, 274822
Hemichromis lifalili Loiselle 1979	X		X	X	X	X		X	X	274828, 274830
Nanochromis cf. *nudiceps* (Boulenger 1899)	X									274833
Nanochromis transvestitus Stewart & Roberts 1984	X									274834
Pelmatochromis nigrofasciatus (Pellegrin 1900)	X	X	X	X		X			X	274837, 274840
Pterochromis congicus (Boulenger 1897)	X	X		X	X					269963, 274844
Sarotherodon galilaeus boulengeri (Pellegrin 1903)				X						274847
Tylochromis pulcher Stiassny 1989	X	X							X	269972, 274849
CYPRINODONTIFORMES										
Nothobranchiidae										
Aphyosemion cognatum Meinkin 1951						X				274666
Epiplatys chevalieri (Pellegrin 1904)							X	X		274670, 274854
Epiplatys multifasciatus (Boulenger 1913)								X		274669
Procatopodidae										
Congopanchax brichardi Poll 1971	X	X								274667, 2747668
TETRAODONTIFORMES										
Tetraodontidae										
Tetraodon miurus Boulenger 1902	X									274665

squamation and pigmentation characteristics. The central and western Congolese specimens currently identified here as *M.* aff. *angolensis* are clearly in need of revisional attention.

Alestidae

***Phenacogrammus* new species 1**
Figure 4B

Material examined. DEMOCRATIC REPUBLIC OF CONGO – **Mai-Ndombe Province** • Ndzaa River, near Mushimine Village; 02°58′25.08″S, 018°07′55.26″E; 25.VII.2018; Stiassny et al. leg.; 8, 42.3–45.1 mm, AMNH 274785.

Identification. Teeth multicuspidate, inner row premaxillary teeth narrow, never molariform and with a single cutting edge, two symphyseal conical teeth form inner tooth on the dentary. Outer premaxillary teeth (4) alternating with placement of inner tooth row, lateral line incomplete. It differs from the nine described *Phenacogrammus* species in the possession of a characteristic pigmentation patterning consisting of a series of "zig-zag" markings along the longitudinal scale rows and a combination of meristic features. Additionally, among *Phenacogrammus* the taxon shares with *P.* new species 2 (below) and their Congolese congener, *P. dehenyi*, a derived expansion of the first pleural rib, a feature lacking in all other *Phenacogrammus* species. This taxon is currently being formally described (Stiassny et al. in press).

***Phenacogrammus* new species 2**
Figure 4C

Material examined. DEMOCRATIC REPUBLIC OF CONGO – **Mai-Ndombe Province** • Ndzaa River, near

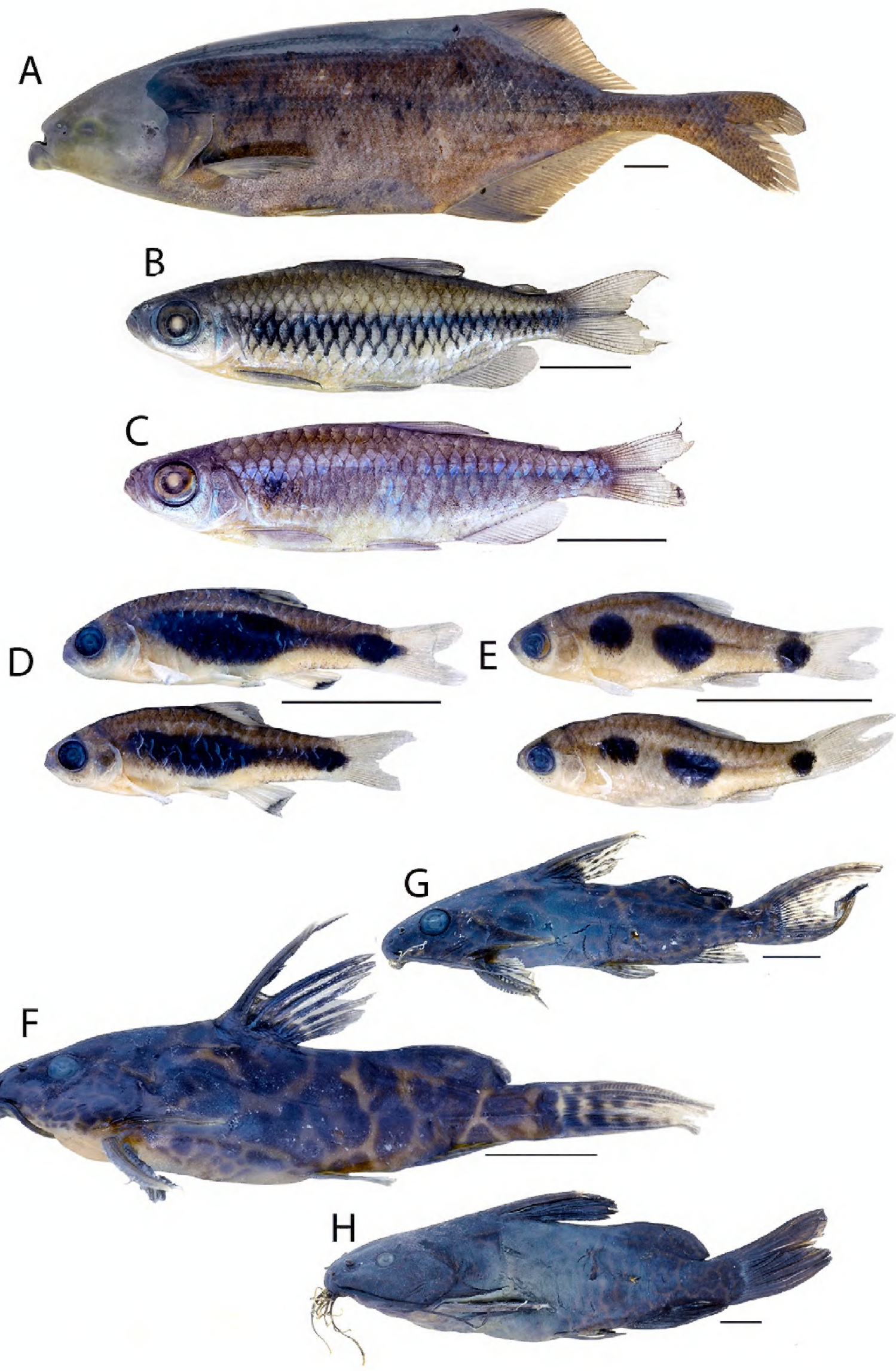

Figure 4. Putatively undescribed or taxonomically ambiguous species and their close relatives. **A.** *Marcusenius* aff. *angolensis* (AMNH 274038). B. *Phenacogrammus* species 1 (AMNH 274785). **B.** *Phenacogrammus* species 2 (AMNH 274786). **D.** *Enteromius cf. hulstaerti* (AMNH 272741) male above, female below. **E.** *Enteromius hulstaerti* (AMNH 274740) male above, female below. **F.** *Synodontis* sp."Tshe"(AMNH 274611). G. *Synodontis greshoffi* (AMNH 274602). **H.** *Synodontis schoutedeni* (AMNH 274609). Scale bar = 1 cm.

Mushimine Village; 02°58′25.08″S, 018°07′55.26″E; 25. VII.2018; Stiassny et al. leg.; 5, 34.3–44.1 mm, AMNH 274786.

Identification. Teeth multicuspidate, inner row premaxillary teeth narrow, never molariform and with a single cutting edge, two symphyseal conical teeth form inner tooth on the dentary. Outer premaxillary teeth (4) alternating with placement of inner tooth row, lateral line incomplete. It differs from the nine described *Phenacogrammus* in the absence of a dominant pigmentation patterning and a combination of meristic features. Additionally, among *Phenacogrammus* the taxon shares with

P. new species 1 (above) and their Congolese congener, *P. dehenyi*, a derived expansion of the first pleural rib, a feature lacking in all other *Phenacogrammus* species. This taxon is currently being formally described (Stiassny et al. in press).

Cyprinidae

***Enteromius* aff. *hulstaerti* (Poll, 1945)**
Figure 4D

Material examined. DEMOCRATIC REPUBLIC OF CONGO – **Mai-Ndombe Province** • River Munganza near Mongobele Mbongo Village; 02°47′58.26″S, 017°51′51.12″E; 25.VII.2018; Stiassny et al. leg.; 5, 19.6–20.6 mm, AMNH 274741.

Identification. Three diminutive "butterfly barbs" currently placed in the genus *Enteromius* are known from the Congo basin: *E. candens*, *E. hulstaerti*, and *E. papilio* (Banister and Bailey 1979); however, the occurrence of several additional "color morphs" have been widely reported in the aquarium literature (e.g., Schliewen 2006; Evers 2007), and this highly distinctive species complex is clearly in need of a basin-wide taxonomic revision. In the Munganza River, a small, forested tributary of the Mfimi, occurring with specimens clearly assignable to *E. hulstaerti* (Fig. 4E), were individuals of a putatively undescribed butterfly barb (Fig. 4D). These individuals share the small size, striking pigmentation, absence/reduction of barbels and pored lateral line scales, and reduction of pectoral-fin ray number characteristic of other butterfly barbs, yet based on their highly distinctive pigment patterning are unassignable to any of the described species of this group. Pending more detailed taxonomic investigation we refer here to these individuals as *E.* aff. *hulstaerti*. Interestingly, a recent study of the relationships of the African small barbs based on cytochrome b sequence data (Hayes and Armbruster 2017) including a representative of *E. hulstaerti*, suggested that a new generic designation will be necessary for these butterfly barbs.

Mochokidae

***Synodontis* sp. "Tshe"**
Figure 4F

Material examined. DEMOCRATIC REPUBLIC OF CONGO – **Mai-Ndombe Province** • Tshe River near confluence with the Mfimi; 02°44′39.98″S, 017°42′40.76″E; 21.VII.2018; Stiassny et al. leg.; 7, 39.2–89.4 mm, AMNH 274611.

Identification. Among a collection of *Synodontis* from the Tshe River were specimens readily identifiable, following Poll (1974), as *S. greshoffi* (Fig. 4G) and *S. schoutedeni* (Fig. 4H). However, seven additional specimens in that collection were unassignable to either of those two species, nor to any other described taxon. The specimens, designated here as *Synodontis* sp. "Tshe", appear intermediate between the blunt-snouted, small-eyed *S. schoutedeni* and the narrow-snouted, large-eyed *S. greshoffi*. Considerable variation among populations of *S. greshoffi* from around the Congo basin has been previously noted (Vigliotta personal communication), and resolution of the identity of *S.* sp. "Tshe" must await a basin-wide revision of this problematic group.

Other Taxa

Protopteridae

***Protopterus dolloi* Boulenger, 1900**
Figure 5A

Material examined. DEMOCRATIC REPUBLIC OF CONGO – **Mai-Ndombe Province** • Molibampe River, barrage drained and collected in mud; 02°36′52.44″S, 017°43′ 40.30″E; 22 July 2018; Stiassny et al. leg.; 2, 123.5–285.0 mm, AMNH 274703.

Identification. Commonly known as the Slender Lungfish, *P. dolloi* is elongate and extremely slender with a pointed, filamentous caudal fin confluent with dorsal and anal fins. Pectoral fins filamentous with a narrow basal fringe. *Protopterus dolloi* is the only protopterid species reliably recorded from the central Congo basin.

Polypteridae

***Polypterus weeksii* Boulenger, 1898**
Figure 5B

Material examined. DEMOCRATIC REPUBLIC OF CONGO – **Mai-Ndombe Province** • Nioki Port, main channel Mfimi River; 02°44′14.90S, 017°41′07.49″E; VIII.2015; Monsembula et al. leg.; 1, 251.5 mm, AMNH 269803 • Purchased, Nioki Port Market; 21 VII 2018; Stiassny et al. leg.; 1, 125.8 mm, AMNH 274702.

Identification. Body encased in interlocking bony, rhomboid scales. Pectoral fin reaches to the level of the first dorsal finlet or is only slightly separated from it. Forty-four or more scale rows around the body at the level of the first dorsal finlet, 20–26 predorsal scales, large black blotch on pectoral fin base and dark bars on body not, or only just, extending below the midline.

Pantodontidae

***Pantodon buchholzi* Peters, 1876**
Figure 5C

Material examined. DEMOCRATIC REPUBLIC OF CONGO – **Mai-Ndombe Province** • Nioki Port main channel Mfimi; 02°43′25.40″S, 017°41′38.50″E; 20.VII.2018; Stiassny et al. leg.; 1, 48.0 mm, AMNH 274660 • Munganza River near Mongobele Mbongo Village; 02°47′58.26″S, 017°51′51.12″E, 25.VII.2018; Stiassny et al. leg.; 1, 46.5 mm, AMNH 274661 • Ndzaa River, near Mushimine Village; 02°58′25.08″S, 018°07′55.26″E; 25.VII.2018; Stiassny et al. leg.; 3, 26.6–45.2 mm, AMNH 274662.

Identification. The African Butterflyfish, *Pantodon buchholzi*, is readily recognized by its compressed body,

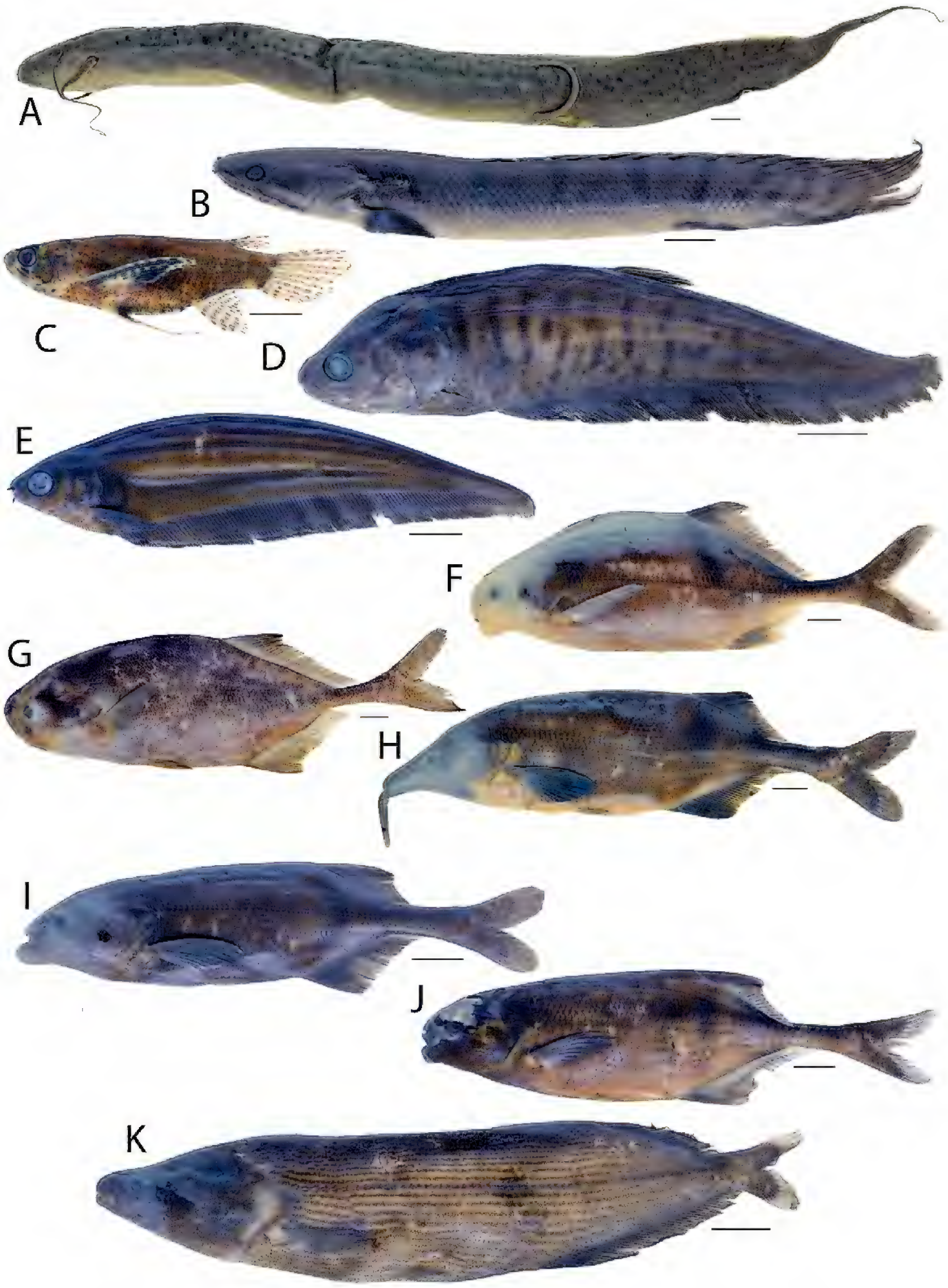

Figure 5. Representative species of genera collected in the region. **A.** *Protopterus dolloi* (AMNH 274703). **B.** *Polypterus weeksi* (AMNH 274702). **C.** *Pantodon buchholzi* (AMNH 274661). **D.** *Papyrocranus congoensis* (AMNH 274649). **E.** *Xenomystus nigri* (AMNH 274658). **F.** *Cyphomyrus psittacus* (AMNH 274022). **G.** *Cyphomyrus plagiostoma* (AMNH 274080). **H.** *Gnathonemus echidnorhynchus* (AMNH 274025). **I.** *Marcusenius leopoldianus* (AMNH 274036). **J.** *Marcusenius schilthuisiae* (AMNH 274045). **K.** *Mormyrops nigricans* (AMNH 274058). Scale bar = 1 cm.

flattened dorsal profile, short posteriorly placed dorsal fin and enlarged wing-like pectoral fins, among many other features. Although this species is considered widespread throughout west-central and west Africa the study of Lavoué et al. (2011) noted marked divergence (upward of 15%) in mitogenomes of individuals from west African (Niger basin) and central African populations, suggesting a deep phylogeographic split dated to greater than 50 Myr. Despite this deep molecular divergence *Pantodon* is morphologically similar throughout its range and

remains considered a single species. The type material of *Pantodon buchholzi* is from the vicinity of Victoria (Limbe) in Cameroon.

Notopteridae

***Papyrocranus congoensis* (Nichols & La Monte, 1932)**
Figure 5D

Material examined. DEMOCRATIC REPUBLIC OF CONGO – **Mai-Ndombe Province** • Lomomo River near Kilako Village; 02°45′14.94″S, 017°55′58.03″E; 20.VII.2018; Stiassny et al. leg.; 1, 83.5 mm, AMNH 274649 • Vainya Lake; 02°43′01.62″S, 017°38′31.50″E; 25.VII.2018; Stiassny et al. leg.; 1, 150.2 mm, AMNH 274651 • Ndzaa River, near Mushimine Village; 02°58′25.08″S, 018°07′55.26″E; 25.VII.2018; Stiassny et al. leg.; 2, 100.2–109.9 mm, AMNH 274652.

Identification. Body strongly laterally compressed with numerous dark bars and spots. Dorsal fin present, pelvic fins absent. Anal fin (104–118 rays) not fully confluent with the caudal fin. Gill rakers on lower limb of the first arch 7–8.

***Xenomystus nigri* (Günther, 1868)**
Figure 5E

Material examined. DEMOCRATIC REPUBLIC OF CONGO – **Mai-Ndombe Province** • Tshe River near confluence with Mfimi; 02°44′39.98″S, 017°42′40.76″E; 21.VII.2018; Stiassny et al. leg.; 1, 93.2 mm, AMNH 274654 • Vainya Lake; 02°43′10.35″S, 017°38′35.96″E; 21.VII.2018; Stiassny et al. leg.; 66, 59.4–93.5 mm, AMNH 274656 • Mfimi at confluence with Ndombolo River; 02°47′26.30″S, 018°44′49.45″E; 22.VII.2018; Stiassny et al. leg.; 2, 90.6–147.2 mm, AMNH 274657 • Ndzaa River, near Mushimine Village; 02°58′25.08″S, 018°07′55.26″E; 25.VII.2018; Stiassny et al. leg.; 1, 73.6 mm, AMNH 274659.

Identification. Body strongly laterally compressed with well-developed pre-pelvic keel. Dorsal fin absent, pelvic fins rudimentary, anal fin continuous with caudal. Coloration variable, light brown to black but never exhibiting any patterning or distinctive markings. Roberts (1992) provided a useful revision of the Old World Notopteridae.

Mormyridae

***Cyphomyrus psittacus* (Boulenger, 1897)**
Figure 5F

Material examined. DEMOCRATIC REPUBLIC OF CONGO – **Mai-Ndombe Province** • Tshe River near confluence with Mfimi; 02°44′39.98″S, 017°42′40.76″E; 21.VII.2018; Stiassny et al. leg.; 1, 83.7 mm, AMNH 274021. • Mfimi River at confluence with Ndombolo River; 02°44′39.98″S, 017°42′ 40.76″E; 22.VII.2018; Stiassny et al. leg.; 1, 115.5 mm, AMNH 27402211 • Mfimi River near Mongobele Bondjon; 02°47′20.88″S, 017°51′35.28″E; 24.VII.2018; Stiassny et al. leg.; 3, 54.9–69.2 mm, AMNH 274023.

Identification. Deep-bodied with dorsal fin longer than anal fin. Dorsal-fin origin well in advance of anal-fin origin. Mouth terminal or subterminal, width about 20% of head length. Eye diameter equal to or slightly longer than snout length.

***Cyphomyrus plagiostoma* (Boulenger, 1898)**
Figure 5G

Material examined. DEMOCRATIC REPUBLIC OF CONGO – **Mai-Ndombe Province** • Tshe River near confluence with Mfimi; 02°44′39.98″S, 017°42′40.76″E; 21.VII.2018; Stiassny et al. leg.; 1, 145.0 mm, AMNH 274080.

Identification. Deep-bodied with dorsal fin longer than anal fin. Dorsal-fin origin well in advance of anal-fin origin. Posterior nostril closer to anterior nostril than to eye. Caudal peduncle thin and elongate, 16 circumpeduncular scales. Snout bluntly rounded, mouth inferior with 7–9 teeth in the upper jaw and 8–10 in the lower. Eye relatively large. Dorsal fin with 31–35 rays, anal fin with 27–30 rays. Eschmeyer et al. (2021) assigned this species to *Pollimyrus*; however, it lacks the characteristics of that genus while possessing those of *Cyphomyrus* (dorsal fin longer than anal, posterior nostril closer to anterior nostril than to eye vs. anal fin longer than dorsal, posterior nostril closer to the eye than to the anterior nostril), additionally the species displays the characteristic "hunchback" appearance of *Cyphomyrus*, a trait for which the genus was named. Generic placement of *plagiostoma* in *Cyphomyrus* is further supported by preliminary molecular studies (Sullivan personal communication).

***Gnathonemus echidnorhynchus* Pellegrin, 1924**
Figure 5H

Material examined. DEMOCRATIC REPUBLIC OF CONGO – **Mai-Ndombe Province** • Tshe River near confluence with Mfimi; 02°44′39.98″S, 017°42′40.76″E; 21.VII.018; Stiassny et al. leg.; 2, 133.5–159.6 mm, AMNH 274024 • Vainya Lake; 02°43′10.35″S, 017°38′35.96″E; 22.VII.2018; Stiassny et al. leg.; 1, 127.1 mm, AMNH 274025.

Identification. Prominent cylindrical barbel-like appendage under chin long and tapering, extending forward from below lower jaw. Snout elongate and tapering. Large number of scales in longitudinal series (65–69 vs. 45–65 in other *Gnathonemus*) and, uniquely for the genus, 12 circumpeduncular scale rows (vs. 8 in other species).

***Marcusenius leopoldianus* (Boulenger, 1899)**
Figure 5I

Material examined. DEMOCRATIC REPUBLIC OF CONGO – **Mai-Ndombe Province** • Mingomi Stream near Ngenza Village, small channel slow flow over mud.; 02°40′48.96″S, 017°39′16.14″E; 23.VII.2018; Stiassny et al. leg.; 4, 74.0–82.6 mm, AMNH 274036 • Lomomo River near confluence with Mfimi; 02°45′19.74″S, 017°55′55.80″E; 25.VII.2018; Stiassny et al. leg.; 1, 96.7

mm, AMNH 274037 • Nioki Port main channel Mfimi River; 02°44′14.90″S, 017°41′07.94″E; VIII.2015; Monsembula et al. leg.; 1, 143.2 mm, AMNH 269815.

Identification. Bulbous submental appendage present and extending beyond the end of the upper jaw. Twelve circumpeduncular scale rows. Relatively gracile with dorsal fin (24–25 rays) origin well behind anal-fin (28–32 ray) origin. Fifty-five – 60 scales in longitudinal series. Teeth bicuspid.

Marcusenius schilthuisiae (Boulenger, 1899)

Figure 5J

Material examined. DEMOCRATIC REPUBLIC OF CONGO – **Mai-Ndombe Province** • Tshe River near confluence with Mfimi; 02°44′39.98″S, 017°42′40.76″E; 21.VII.2018; Stiassny et al. leg.; 10, 55.7–62.5 mm, AMNH 274045 • Mfimi River at confluence with Ndombolo River; 02°47′26.30″S, 017°44′49.45″E; 22.VII.2018; Stiassny et al. leg.; 4, 64.1–70.2 mm, AMNH 274046 • Mingomi Stream near Ngenza Village, small channel slow flow over mud; 02°40′48.96″S, 017°39′16.14″E; 23.VII.2018; Stiassny et al. leg.; • 4, 51.0–57.5 mm, AMNH 274047 • Lebee River near Mosomba Village; 02°46′49.17″S, 017°58′09.79″E; 25.VII.2018; Stiassny et al. leg.; 3, 62.1–76.2 mm, AMNH 274048.

Identification. Small submental appendage present and extending just beyond the end of the upper jaw. Eight circumpeduncular scale rows. Snout short and blunt. Dorsal-fin origin situated behind anal-fin origin, dorsal-fin base ends well before that of anal fin, 21–25 scale rows in transverse series between dorsal and anal-fin origin. Anal fin with 32–35 rays, 42–54 scales in longitudinal series. Boden et al. (1997) provided a key to the "large-scaled" *Marcusenius*, all of which have eight circumpeduncular scales vs. 12 in all other species of the genus.

Mormyrops nigricans Boulenger, 1899

Figure 5K

Material examined. DEMOCRATIC REPUBLIC OF CONGO – **Mai-Ndombe Province** • Tshe River near confluence with Mfimi; 02°44′39.98″S, 017°42′40.76″E; 21.VII.2018 July 2018; Stiassny et al. leg.; 3, 105.9–106.4 mm, AMNH 274058.

Identification. Teeth truncate, closely spaced and extending along the entire length of both jaws in a single row. Moderately elongate, body depth 5–5.5 times into standard length. Caudal peduncle short, with 12 circumpeduncular scales. Fourteen–16 scale rows between anal and dorsal-fin origin. Numerous thin dark longitudinal bands centered on each scale row on the dorsal and ventral flanks.

Mormyrus ovis Boulenger, 1898

Figure 6A

Material examined. DEMOCRATIC REPUBLIC OF CONGO – **Mai-Ndombe Province** • Mfimi River near Mongobele Bondjon.; 02°47′20.88″S, 017°51′35.28″E; 24.VII.2018; Stiassny et al. leg.; 4, 83.6–131.7 mm, AMNH 274059 • Lebee River near Mosomba Village.; 02°46′49.17″S, 017° 58′ 09.79″E; 25.VII.2018; Stiassny et al. leg.; 1, 145.2 mm, AMNH 274060.

Identification. Dorsal fin (53–55 rays) more than twice the length of anal fin (22–23 rays), originating in advance of pelvic-fin insertion. Snout small and tubular, mouth terminal with small, notched teeth in anterior of both jaws. Caudal peduncle long and narrow, 14–16 circumpeduncular scales, 90–92 scale rows between origin of dorsal and anal fins. Reizer (1964) provided the most recent revision of *Mormyrus* in central Africa, but the taxonomy of the genus remains problematical.

Myomyrus macrops Boulenger 1914

Figure 6B

Material examined. DEMOCRATIC REPUBLIC OF CONGO – **Mai-Ndombe Province** • Tshe River near confluence with Mfimi; 02°44′39.98″S, 017°42′40.76″E; 21.VII.2018; Stiassny et al. leg.; 2, 130–135.4 mm, AMNH 274062 •, Mfimi River at confluence with Ndombolo River; 02°47′26.30″S, 017°44′49.45″E; 22.VII.2018; Stiassny et al. leg.; 1, 119.2 mm, AMNH 274063 • Purchased at Nioki Night Market, Gawou; 20.VII.2018; Stiassny et al. leg.; 1, 247.2 mm, AMNH 274061.

Identification. Dorsal fin long (40–44 rays) originating well behind insertion of pelvic fin. Snout short and blunt, symphysial teeth in lower jaw greatly enlarged. Eye diameter 10–11% of head length. Poll and Taverne (1967) provided a key to the three species of *Myomyrus* currently recognized.

Petrocephalus cf. *congicus* David & Poll, 1937

Figure 6C

Material examined. DEMOCRATIC REPUBLIC OF CONGO – **Mai-Ndombe Province** • Nioki Harbor main channel Mfimi.; 02°44′10.47″S, 017°40′47.46″E; VIII.2015; Monsembula et al. leg.; 3, 68.3–88.9 mm, AMNH 269827 • Molibampe River, Babôo; 02°43′22.00″S, 017°41′55.70″E, VIII.2015; Monsembula et al. leg.; 3, 53.2–86.2 mm, AMNH 269830 • Molibampe River at Mpumpe; 02°42′08.43″S, 017°43′49.23″E; VIII.2015; Monsembula et al. leg.; 1, 74.9 mm, AMNH 269829.

Identification. Anterior and posterior nostrils extremely close together and located just outside anterior border of eye, mouth inferior. Body more-or-less uniformly colored with no pectoral, dorsal, or caudal spots or bars. Eleven notched teeth in the upper jaw and 20–24 in the lower jaw. Thirty-four–37 pored scales in the lateral line, 12 circumpeduncular scales. Ten scale rows between the anterior base of the anal fin and the lateral line. Anal fin with 25–28 rays, dorsal fin with 23–25 rays. The dorsal fin rays in our specimens are more numerous than the 18–19 reported for *P. congicus* by David and Poll (1937). Unfortunately, Lavoué and Sullivan (2014) did not include *P. congicus* in their key to the *Petrocephalus* species of the Central Congo basin, and no additional information on this species is available. Due to this

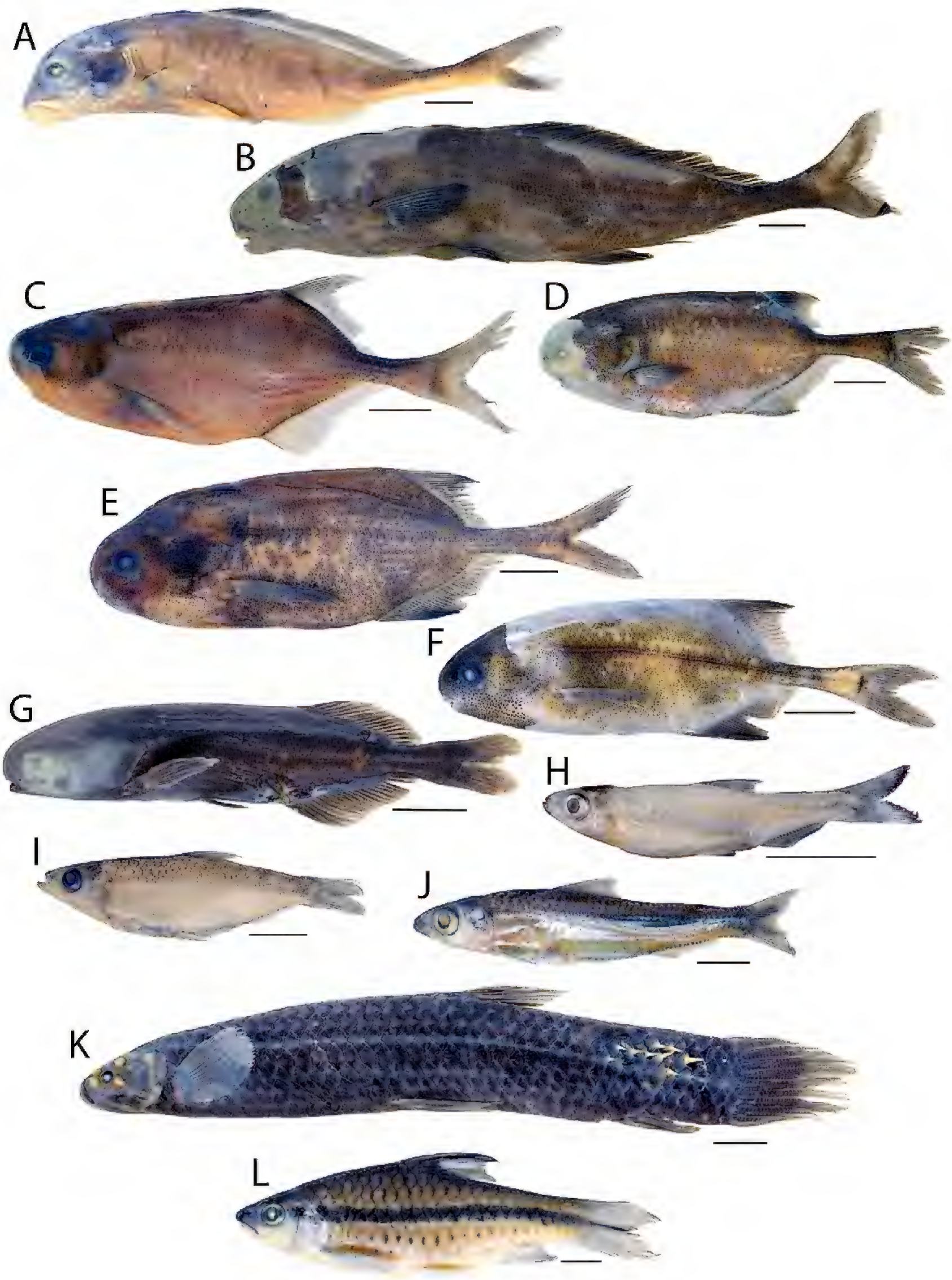

Figure 6. Representative species of genera collected in the region. **A.** *Mormyrus ovis* (AMNH 274059). **B.** *Myomyrus macrops* (AMNH 274059). **C.** *Petrocephalus* cf. *congicus* (AMNH 269827). **D.** *Petrocephalus micropthalmus* (AMNH 274067). **E.** *Pollimyrus nigripinnis* (AMNH 26984). **F.** *Pollimyrus maculipinnis* (AMNH 274076). **G.** *Stomatorhinus kununguensis* (AMNH 274082). **H.** *Microthrissa congica* (AMNH 269809). **I.** *Nannothrissa stewarti* (AMNH 269804). **J.** *Potamothrissa obtusirostris* (AMNH 274748). **K.** *Phractolaemus ansorgii* (AMNH 274663). **L.** *Enteromius* cf. *miolepis* (AMNH 274742). Scale bar = 1 cm.

uncertainty in identification, we refer here to these specimens as *P.* cf. *congicus*.

Petrocephalus microphthalmus Pellegrin, 1909

Figure 6D

Material examined. DEMOCRATIC REPUBLIC OF CONGO – **Mai-Ndombe Province** • Mingomi Stream near Ngenza Village, small channel with slow flow over mud.; 02°40′48.96″S, 017°39′16.14″E; 23.VII.2018; Stiassny et al. leg.; 6, 21.9–38.1 mm, AMNH 274068 •, Molibampe River at Mabala; 02°42′14.90″S, 017°42′50.44″E; VIII.2015; Monsembula et al. leg.; 3, 55.9–65.3 mm,

AMNH 269833 • Site 5, Tshe River; 02°44′42.01″S, 017°44′33.87″E, VIII.2015; Monsembula et al. leg.; 3, 49.0–64.5 mm, AMNH 269836.

Identification. Anterior and posterior nostrils extremely close together and located just outside anterior border of eye, mouth inferior. Snout bluntly rounded, mouth small with 9–11 bicuspid teeth in the upper and 14–20 in the lower jaw. Dorsal fin with 15–18 rays, anal fin with 23–28 rays. Anterior margin of the dorsal fin usually darkly pigmented. Only 8–9 (rarely 10) scale rows between the anal-fin origin and the lateral line. A small species, rarely reaching beyond 5 cm in length. Lavoué et al. (2010) and Lavoué and Sullivan (2014) provided excellent reviews of many of the *Petrocephalus* species of the Congo basin.

***Pollimyrus nigripinnis* (Boulenger, 1899)**
Figure 6E

Material examined. DEMOCRATIC REPUBLIC OF CONGO – **Mai-Ndombe Province** • Nioki Port, main channel Mfimi River; 02°44′14.90″S, 017°41′07.49″E; VIII.2015; Monsembula et al. leg.; 1, 88.2 mm, AMNH 269840 • Molibampe River at Mpumpe; 02°42′08.43″S, 017°43′49.23″E; VIII.2015; Monsembula et al. leg.; 1, 79.0 mm, AMNH 269841.

Identification. Posterior nostrils closer to the eye than to anterior nostrils. Dorsal fin (20–22 rays) shorter than anal fin (26–27 rays), and origin located posterior to origin of anal fin. Deep-bodied, with snout blunt and rounded, mouth wide with nine teeth in upper jaw and 10 in lower jaw. Caudal peduncle thin, expanded posteriorly, with 12 circumpeduncular scales. A large species often attaining sizes of over 11 cm in length.

***Pollimyrus maculipinnis* (Nichols & La Monte, 1934)**
Figure 6F

Material examined. DEMOCRATIC REPUBLIC OF CONGO – **Mai-Ndombe Province** • Tshe River near confluence with Mfimi.; 02°44′39.98″S, 017°42′40.76″E; 21.VII.2018; Stiassny et al. leg.; 1, 85.5 mm, AMNH 274077 • Mfimi at confluence with Ndombolo River; 02°47′26.30″S, 018°44′49.45″E; 22.VII.2018; Stiassny et al. leg.; 1, 67.4 mm, AMNH 274078 • Purchased at Nioki Port Market; 21.VII.2018; Stiassny et al. leg.; 1, 60.0 mm, AMNH 274076.

Identification. Posterior nostrils closer to the eye than to anterior nostrils. Dorsal fin with low number of rays (17–19) shorter than anal fin (21–25 rays), and origin located posterior to origin of anal fin. Small sized, moderately deep-bodied, with snout somewhat acute, mouth very small with seven teeth in upper jaw and eight in lower jaw. Caudal peduncle thin, expanded posteriorly, with 12–14 circumpeduncular scales. Anterior margin of the dorsal and anal fins usually darkly pigmented, otherwise no conspicuous markings on the body. A small species, rarely reaching beyond 5 cm in length.

***Stomatorhinus kununguensis* Poll, 1945**
Figure 6G

Material examined. DEMOCRATIC REPUBLIC OF CONGO – **Mai-Ndombe Province** • Tshe River near confluence with the Mfimi; 02°44′39.98″S, 017°42′40.76″E; 21.VII.2018; Stiassny et al. leg.; 3, 34.5–45.5 mm, AMNH 274081 • Lomomo River, near confluence with Mfimi; 02°45′19.74″S0,17°55′55.80″E; 25.VII.2018; Stiassny et al. leg.; 1, 60.5 mm, AMNH 274082.

Identification. Posterior nostril distant from anterior nostril and located just above the mouth. Elongate with body depth above anal fin origin 21–22% of standard length. Snout blunt and rounded with seven notched teeth in the upper jaw and eight in the lower, eye diameter 10.5–13% of head length. Dorsal fin with 16–19 rays, anal with 21–23. Caudal peduncle short and deep, with 12–14 circumpeduncular scales. The taxonomy of *Stomatorhinus* is extremely poorly understood. However, Poll (1945) and Sullivan and Hopkins (2004) provided useful information for some members of this poorly documented genus.

Clupeidae

***Microthrissa congica* (Regan, 1917)**
Figure 6H

Material examined. DEMOCRATIC REPUBLIC OF CONGO – **Mai-Ndombe Province** • Nioki Port, main channel Mfimi River; 02°44′14.90″S, 017°41′07.49″E; VIII.2015; Monsembula et al. leg.; 1, 58.0 mm, AMNH 269807 • Site 5, Tshe River; 02°44′42.01″S, 017°44′33.87″E, VIII. 2015; Monsembula et al. leg.; 12, 55.0–57.2 mm, AMNH 269809 • Molibampe River, Babôo; 02°43′22.00″S, 017°41′55.70″E, VIII.2015; Monsembula et al. leg.; 11, 45.2–57.9 mm, AMNH 269808.

Identification. Lower jaw deeper than long with teeth restricted to the anterior margin, anal fin moderately long with 15–22 rays, first pre-pelvic scute located behind the origin of the first pectoral-fin ray, generally 8–9 post-pelvic scutes. Twenty-six–35 scales in longitudinal series. Gourene and Teugels (1989) recognized two subgenera, *Microthrissa* (*Microthrissa*) and *Microthrissa* (*Poecilothrissa*), and assigned *M. congica* to the latter.

***Nannothrissa stewarti* Poll & Roberts, 1976**
Figure 6I

Material examined. DEMOCRATIC REPUBLIC OF CONGO – **Mai-Ndombe Province** • Nioki Harbor, main channel Mfimi River; 02°44′10.87″S, 017°40′47.46″E; VIII.2015; Monsembula et al. leg.; 1, 49.5 mm, AMNH 269804 • Site 5, Tshe River; 02°44′42.01″S, 017°44′33.87″E, VIII.2015; Monsembula et al. leg.; 1, 46.3 mm, AMNH 269805 • Site 7, Tshe River, 02°45′05.94″S, 017°46′38.30″E, VIII.2015; Monsembula et al. leg.; 11, 40.7–42.2 mm, AMNH 269806.

Identification. Relatively deep-bodied, lower jaw prognathous, dentition on dentary, maxilla, and premaxilla

extremely reduced or, more commonly, absent. Pre-pelvic (9–10) and post-pelvic (7–9) scutes well developed and strongly keeled. Single supramaxilla deep with a slender anterior shaft. Anal-fin rays 17–19, and 34–35 scales in longitudinal series.

***Potamothrissa obtusirostris* (Boulenger, 1909)**
Figure 6J

Material examined. DEMOCRATIC REPUBLIC OF CONGO – **Mai-Ndombe Province** • Mfimi River near Mongobele Bondjon; 02°47′20.88″S, 017°51′35.28″E; 24.VII.2018; Stiassny et al. leg.; 3, 37.4–52.7 mm, AMNH 274745 • Lomomo River near Kilako; 02°45′16.20″S, 017°56′06.66″E, 25.VII.2018; Stiassny et al. leg.; 5, 46.5–59.8 mm, AMNH 274746 •, Lebee River at Mushuma, 02°46′49.17″S, 017°58′09.79″E, 25.VII.2018; Stiassny et al. leg.; 11, 50.3–58.2 mm, AMNH 274748.

Identification. Lower jaw shallow with teeth extending the length of the jaw, no teeth on the maxilla. First dorsal fin-ray inserted in advance of the pelvic insertion. Pre-and post-pelvic scutes weakly developed and belly rounded. Snout bluntly rounded. Gourene and Teugels (1994) provided useful keys to genera and species of the African pellonulines.

Kneriidae

***Phractolaemus ansorgii* Boulenger, 1901**
Figure 6K

Material examined. DEMOCRATIC REPUBLIC OF CONGO – **Mai-Ndombe Province** • Molibampe River, barrage drained and collected in mud; 02°36′52.42″S, 017°43′40.30″E; 22.VII.2018; Stiassny et al. leg.; 7, 89.6–102.7 mm, AMNH 274663 • Ndzaa River, near Mushimine Village; 02°58′25.08″S, 018°07′55.26″E; 25.VII.2018; Stiassny et al. leg.; 1, 84.0 mm, AMNH 274664.

Identification. Hingemouths are highly distinctive in appearance, with an elongate cylindrical body encased in large regularly imbricating cycloid scales. The head is small with elongate tubular anterior nostrils and a small but highly protrusible mouth, opening upward forming a trunk-like appendage. Large specimens often exhibit conspicuous keratinous tubercles on the head, and sharp thorn-like spines along and above the posterior lateral line scales.

Cyprinidae

***Enteromius* cf. *miolepis* (Boulenger, 1902)**
Figure 6L

Material examined. DEMOCRATIC REPUBLIC OF CONGO – **Mai-Ndombe Province** • Ndzaa River, near Mushimine Village; 02°58′25.08″S, 018°07′55.26″E; 25.VII.2018; Stiassny et al. leg.; 2, 68.4–85.9 mm, AMNH 274742.

Identification. While no key to the "small barbs" (*Enteromius* spp.) of the Congo basin is currently available, the Ndzaa specimens closely resemble the widespread African zigzag barb, *Enteromius miolepis* (Skelton, 2001). However, Van Ginneken et al. (2017) considered *E. miolepis* of the Congo basin to be a polyspecific complex of up to 13 putative species. The type locality of *E. miolepis* is the Yembe River at Banzyville (Ubangi basin) some 850 km to the north of the Ndzaa. Therefore, pending more detailed study, we refer here to the Ndzaa specimens as *E.* cf. *miolepis*.

Citharinidae

***Citharinus gibbosus* Boulenger, 1899**
Figure 7A

Material examined. DEMOCRATIC REPUBLIC OF CONGO – **Mai-Ndombe Province** • Molibampe River at Mabala; 02°42′14.90″S, 017°42′50.44″E; VIII.2015; Monsembula et al. leg.; 2, 104.0–108.0 mm, AMNH 269870 • Site 7, Tshe River, 02°45′05.94″S, 017°46′38.30″E, VIII.2015; Monsembula et al. leg.; 1, 50.0 mm, AMNH 269872 • Purchased at Nioki Night Market, Nhawou, 20.VII.2018; Stiassny et al. leg.: 3, 79.0–109.5 mm, AMNH 274708.

Identification. Extremely deep-bodied and laterally compressed. Scales cycloid, snout projecting beyond lower jaw, fine teeth on lower jaw in a single row. Base of adipose fin about as long as the distance between it and the dorsal fin, dorsal-fin origin close to level of pelvic-fin insertion. Fifty-three–59 scales in the lateral line, 10–12 scale rows from pelvic insertion to lateral line.

Distichodontidae

***Distichodus altus* Boulenger, 1899**
Figure 7B

Material examined. DEMOCRATIC REPUBLIC OF CONGO – **Mai-Ndombe Province** • Lomomo River, near confluence with Mfimi; 02°45′19.74″S, 017°55′55.80″E; 25.VII.2018; Stiassny et al. leg.; 1, 71.8 mm, AMNH 274712 • Kutu Port, at mouth of Lake Mai Ndombe; 02°43′27.91″S, 018°09′42.34″E; 25.VII.2018; Monsembula et al. leg.; 1, 109.5 mm, AMNH 269875 • Purchased at Nioki Night Markey, Nhawou, 20.VII.2018; Stiassny et al. leg.; 2, 95.6–125.8 mm, AMNH 274710.

Identification. Deep-bodied and somewhat laterally compressed. Maxilla large and mobile, lower jaw with mobile joint, two or more rows of comb-like bicuspid teeth in both jaws. Scales ctenoid, 40–45 pored scales along lateral line, nine scale rows between lateral line and pelvic insertion. Anal-fin base as long, or longer than dorsal-fin base.

***Distichodus sexfasciatus* Boulenger, 1897**
Figure 7C

Material examined. DEMOCRATIC REPUBLIC OF CONGO – **Mai-Ndombe Province** • Nioki Port main channel Mfimi; 02°43′25.40″S, 017°41′38.50″E; 20.VII.2018; Stiassny et al. leg.; 1, 36.7 mm, AMNH 274722 • Tshe River near confluence with the Mfimi; 02°44′39.98″S,

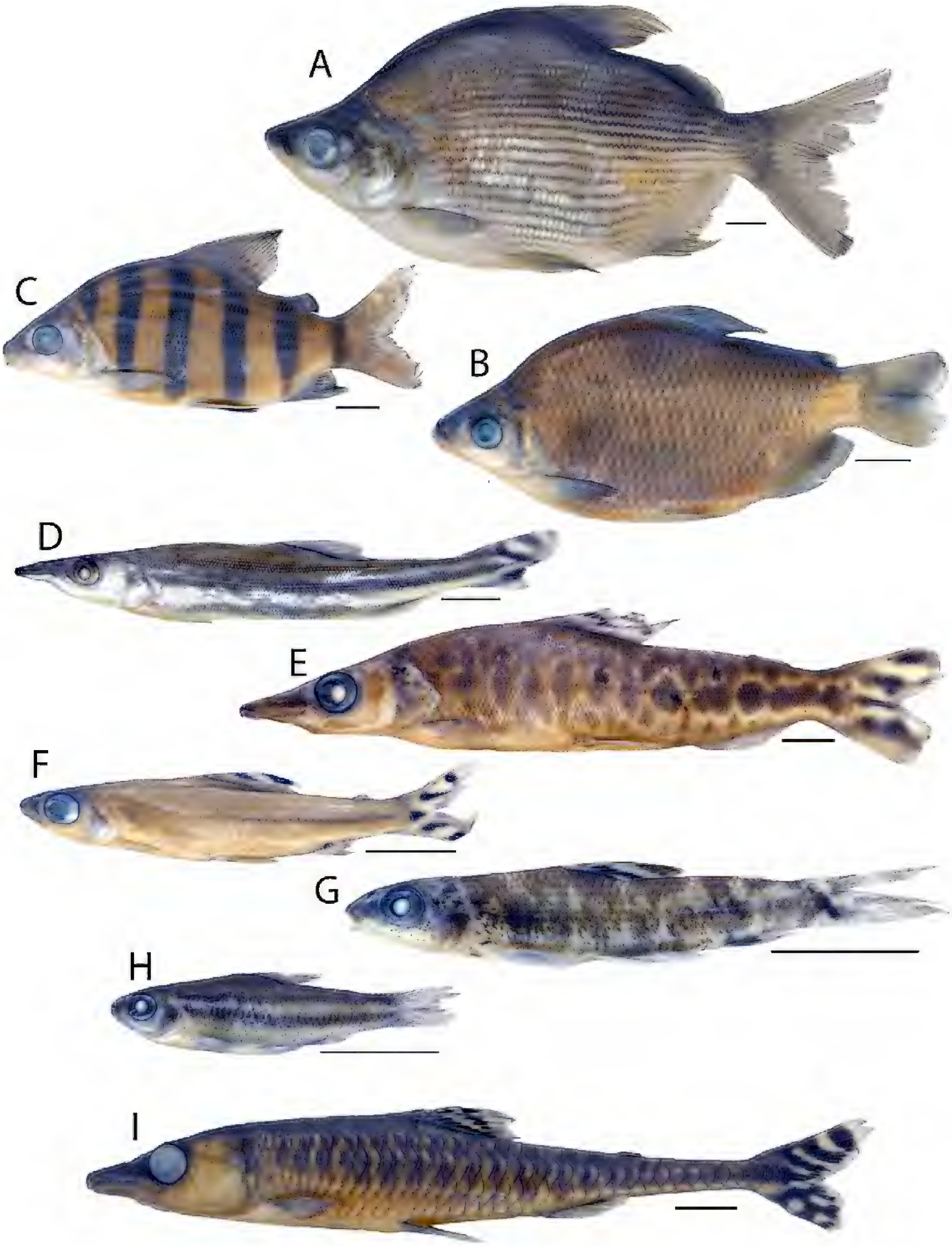

Figure 7. Representative species of genera collected in the region. **A.** *Citharinus gibbosus* (AMNH 274709). **B.** *Distichodus altus* (AMNH 274710). **C.** *Distichodus sexfasciatus* (AMNH 274724). **D.** *Ichthyborus ornatus* (AMNH 274732). **E.** *Mesoborus crocodilus* (AMNH 274733). **F.** *Monostichodus mesmaekersi* (AMNH 274729). **G.** *Nannocharax macropterus* (AMNH 274734). **H.** *Neolebias philippei* (AMNH 274735). **I.** *Phago boulengeri* (AMNH 274737). Scale bar = 1 cm.

017°42′40.76″E; 21.VII.2018; Stiassny et al. leg.; 1, 130.5 mm, AMNH 274723 • Mfimi River near Mongobele Bondjon; 02°47′20.88″S, 017°51′35.28″E; 24.VII.2018; Stiassny et al. leg.; 1, 130.5 mm, AMNH 274725 • Mfimi at confluence with Ndombolo River; 02°47′26.30″S, 018°44′49.45″E; 22.VII.2018; Stiassny et al. leg.; 2, 63.0–82.3 mm, AMNH 274724.

Identification. Deep-bodied and laterally compressed. Maxilla large and mobile, lower jaw with mobile joint, two or more rows of fine bicuspid teeth, 12–14 outer row teeth in both jaws. Snout deeper than long and laterally compressed. Scales ctenoid, 60–68 pored scales in lateral line. 11–12 scale rows between lateral line and pelvic insertion. Anal-fin base much shorter than dorsal-fin

base. Six thick black bands from head to base of caudal fin. Reviews of many Congo basin *Distichodus* are provided by Moelants et al. (2014, 2018) and Abwe et al. (2019). See also Arroyave et al. (2020) and Schmidt et al. (2021).

Ichthyborus ornatus **(Boulenger, 1899)**
Figure 7D

Material examined. DEMOCRATIC REPUBLIC OF CONGO – **Mai-Ndombe Province** • Mfimi River near Mongobele Bondjon; 02°47′20.88″S, 017°51′35.28″E; 24.VII.2018; Stiassny et al. leg.; 1, 81.8 mm, AMNH 274732.

Identification. Maxilla very small, premaxilla large and mobile, pivots vertically. Scales small, ctenoid, lateral line scales extend over entire length. Anterior premaxillary teeth enlarged and fang-like, snout tubular and elongate. Color pattern dominated by contrasting dark and light longitudinal bands, caudal fin black with pale blotches and stripes.

Mesoborus crocodilus **Pellegrin, 1900**
Figure 7E

Material examined. DEMOCRATIC REPUBLIC OF CONGO – **Mai-Ndombe Province** •, Mfimi River near Mongobele Bondjon; 02°47′20.88″S, 017°51′35.28″E; 24.VII.2018; Stiassny et al. leg.; 1, 120.0 mm, AMNH 274733.

Identification. Maxilla very small, premaxilla large and mobile, pivots vertically. Scales small, ctenoid, lateral line scales extend over entire length. Anterior premaxillary teeth enlarged and fang-like, snout tubular and elongate. Color pattern dominated by large irregular blotches concentrated along the midline, caudal fin black with pale blotches and stripes.

Monostichodus mesmaekersi **(Poll, 1959)**
Figure 7F

Material examined. DEMOCRATIC REPUBLIC OF CONGO – **Mai-Ndombe Province** • Mfimi at confluence with Ndombolo River; 02°47′26.30″S, 018°44′49.45″E; 22.VII.2018; Stiassny et al. leg.; 63, 26.4–42.5 mm, AMNH 274728 • River Munganza near Mongobele Mbongo Village; 02°47′58.26″S, 017°51′51.12″E; 24.VII.2018; Stiassny et al. leg.; 3, 37.8–44.1 mm, AMNH 274729 • Lomomo River, near confluence with Mfimi; 02°45′19.74″S, 017°55′55.80″E; 25.VII.2018; Stiassny et al. leg.; 2, 34.6–35.4 mm, AMNH 274731.

Identification. Previously considered a species of *Hemistichodus*, Musschoot and Snoeks (2016) have placed the genus in junior synonymy with *Monostichodus*. Maxilla very small, premaxilla large and mobile, pivots vertically. Scales small, ctenoid, lateral line scales pored anteriorly and posteriorly but not in middle portion of longitudinal series. Premaxillary teeth long necked bicuspids, not enlarged or fang-like, single row of teeth in both jaws. Dorsal and caudal fin with dark bands and blotches.

Nannocharax macropterus **Pellegrin, 1926**
Figure 7G

Material examined. DEMOCRATIC REPUBLIC OF CONGO – **Mai-Ndombe Province** • Mfimi River near Mongobele Bondjon; 02°47′20.88″S, 017°51′35.28″E; 24.VII.2018; Stiassny et al. leg.; 7, 34.0–36.5 mm, AMNH 274734.

Identification. Maxilla large and mobile, jaws with a single row of small bicuspid teeth, maxilla without teeth. Scales small, ctenoid, 40–42 pored scales in complete lateral line, 15–16 circumpeduncular scales. Body elongate and torpedo-shaped, eye large, dorsal fin insertion well in front of insertion of pelvic fins. Pectoral fins large and reaching to pelvic fins. Body cream with numerous dark patches and blotches, black blotch at base of caudal peduncle.

Neolebias philippei **Poll & Gosse, 1963**
Figure 7H

Material examined. DEMOCRATIC REPUBLIC OF CONGO – **Mai-Ndombe Province** • Mingomi Stream near Ngenza Village, small channel slow flow over mud.; 02°40′48.96″S, 017°39′16.14″E; 23.VII.2018; Stiassny et al. leg.; 28, 18.3–24.4 mm, AMNH 274735 • Site 5, Tshe River; 02°44′42.01″S, 017°44′33.87″E, VIII.2015; Monsembula et al. leg.; 3, 21.5–26.4 mm, AMNH 269894.

Identification. Maxilla large and mobile, jaws with two rows of small bicuspid teeth, maxilla with 5–6 teeth. Scales small, ctenoid, lateral line with only a few pored scales anteriorly, 32–34 scales in longitudinal series, 12–14 circumpeduncular scales. Caudal peduncle longer than deep, two dark bands running along either side of the midline for length of body, not extending onto caudal fin.

Phago boulengeri **Schilthuis, 1981**
Figure 7I

Material examined. DEMOCRATIC REPUBLIC OF CONGO – **Mai-Ndombe Province** • Mfimi at confluence with Ndombolo River; 02°47′26.30″S, 018°44′9.45″E; 22.VII.2018; Stiassny et al. leg.; 6, 41.2–110.7 mm, AMNH 274737 • Lomomo River near Kilako; 02°45′16.20″S, 017°56′06.66″E, 25.VII.2018; Stiassny et al. leg.; 2, 66.3–101.7 mm, AMNH 274738. • Lebee River near Monsomba Village; 02°46′49.17″S, 017°58′09.79″E; 25.VII.2018; Stiassny et al. leg.; 1, 58.3 mm, AMNH 274739.

Identification. Maxilla very small, premaxilla large and mobile, pivots vertically. Scales, ctenoid, large hard and somewhat plate-like. Three scale rows on dorsal surface behind adipose fin. Lateral line scales extend over entire length, 40–42 pored scales. Two rows of teeth in both jaws, inner row widely separated from outer row. Premaxillary teeth not enlarged and fang-like, snout tubular. Caudal fin black with numerous white bars and large spots.

Hepsetidae

***Hepsetus microlepis* (Boulenger, 1901)**
Figure 8A

Material examined. DEMOCRATIC REPUBLIC OF CONGO – **Mai-Ndombe Province** •, Molibampe River at Mpumpe; 02°42′08.43″S, 017°43′49.23″E; VIII.2015; Monsembula et al. leg.; 1, 229.0 mm, AMNH 269864 • Vainya Lake; 02°43′01.62″S, 018°38′31.50″E; 21.VII.2018; Stiassny et al. leg.; 1, 84.5 mm, AMNH 274776.

Identification. The African pikes are highly distinctive in appearance, with elongate snouts and posteriorly place dorsal fins. Dentition is characteristic with a single row of large conical unicupid teeth on the upper jaw and two rows of similarly shaped teeth on the lower, a pair of large canine teeth are present anteriorly on both. Two pairs of triangular dermal flaps are present on the jaws. Uniform yellow-gold coloration with no obvious markings or stripes. Scale rows between dorsal fin and lateral line (9.5–10.5) and between adipose fin and lateral line (5.5–6.5). Gill rakers along first arch 13–14. In a series of recent studies Decru et al. (2012, 2013a, 2013b, 2015) have revised the taxonomy of this genus, once considered as monotypic, to include six species.

Alestidae

***Alestes liebrechtsii* Boulenger, 1898**
Figure 8B

Material examined. DEMOCRATIC REPUBLIC OF CONGO – **Mai-Ndombe Province** • Nioki Night Market; 21.VII.2018; Stiassny et al. leg.; 4, 94.3–98.4 mm, AMNH 274749.

Identification. Large well-developed adipose eyelid envelops most of the eye leaving only a thin slit in the region of the pupil. Jaws with robust, molariform premaxillary inner row teeth, absence of a third row of molariform premaxillary teeth (see *Bryconaethiops*, below). Elongate, lateral line positioned below midline on flanks, dorsal fin located above pelvic-fin insertion, dorsal fin with 10–11 rays, anal with 17–19 rays. A key to *Alestes* was given by Paugy (1986), and Stiassny et al. (2009) provided an updated generic diagnosis for the genus.

***Alestopetersius leopoldianus* (Boulenger, 1899)**
Figure 8C

Material examined. DEMOCRATIC REPUBLIC OF CONGO – **Mai-Ndombe Province** • Molibampe River at Mpumpe; 02°42 08.43″S, 017°43′49.23″E; VIII.2015; Monsembula et al. leg.; 1, 60.5 mm, AMNH 269864 • Lomomo River, near Kilako Village; 02°45′14.94″S, 017°55′58.03″E, 20.VII.2018; Stiassny et al. leg.; 1, 75.4 mm, AMNH 274751.

Identification. Teeth multicuspidate, inner row premaxillary teeth narrow, never molariform and with a single cutting edge, no inner tooth row on the dentary. Outer premaxillary teeth (4) alternating with placement of inner tooth row, lateral line complete. Body relatively elongate, snout narrow and mouth large. Scale rows above (5.5) and below (3.5) lateral line, 10 circumpeduncular scales. Wide black band from posterior edge of eye to base of caudal fin, extending onto fin base.

***Brachypetersius altus* (Boulenger, 1899)**
Figure 8D

Material examined. DEMOCRATIC REPUBLIC OF CONGO – **Mai-Ndombe Province** • main channel Mfimi around Nioki Port; 02°43′25.40″S, 017°41′38.50″E, 20.VII.2018; Stiassny et al. leg.; 4, 31.3–44.8 mm, AMNH 274760 • Mfimi at confluence with Ndombolo River; 02°47′26.30″S, 018°44′49.45″E; 22.VII.2018; Stiassny et al. leg.; 1, 41.4 mm, AMNH 274761 •, River Munganza near Mongobele Mbongo Village; 02°47′58.26″S, 017°51′51.12″E; 24.VII.2018; Stiassny et al. leg.; 3, 35.5–40.4 mm, AMNH 274763 • Lebee River near Mosomba Village; 02°46′49.17″S, 017°58′09.79″E; 25.VII.2018; Stiassny et al. leg.; 2, 38.4–44.7 mm, AMNH 274764 • Lomomo River, near confluence with Mfimi; 02°45′19.74″S, 017°55′55.80″E; 25.VII.2018; Stiassny et al. leg.; 1, 48.6 mm, AMNH 274765.

Identification. Teeth multicuspidate, inner row premaxillary teeth narrow, never molariform and with a single cutting edge, two symphyseal conical teeth form inner tooth on the dentary. Outer premaxillary teeth (4) alternating with placement of inner tooth row, lateral line complete. Deep-bodied with 5–5.5 scales in transverse row between lateral line and dorsal fin origin. Large ovoid-round black spot on the caudal peduncle, below the adipose fin, never extending over caudal base.

***Brycinus bimaculatus* (Boulenger, 1899)**
Figure 8E

Material examined. DEMOCRATIC REPUBLIC OF CONGO – **Mai-Ndombe Province** • Lomomo River near Kilako; 02°45′16.20″S, 017°56′06.66″E, 25.VII.2018; Stiassny et al. leg.; 2, 78.7–79.5 mm, AMNH 274766 • Lomomo River, near confluence with Mfimi; 02°45′19.74″S, 017°55′55.80″E; 25.VII.2018; Stiassny et al. leg.; 6, 74.1–86.2 mm, AMNH 274767.

Identification. Adipose eyelid absent, inner row premaxillary teeth broad and molariform. Fronto-parietal fontanelle absent. Snout length more than three times in head length, no humeral spot and a large black spot located above the lateral line behind the dorsal fin, and another at the base of the caudal peduncle. Paugy (1986) provided a key to the species of *Brycinus* (additional information on all described species is available in an online resource (Paugy et al. 2019).

***Bryconaethiops microstoma* Günther, 1873**
Figure 8F

Material examined. DEMOCRATIC REPUBLIC OF CONGO – **Mai-Ndombe Province** • Mfimi River near Mongobele Bondjon; 02°47′20.88″S, 017°51′35.28″E; 24.VII.2018; Stiassny et al. leg.; 9, 71.8–97.6 mm, AMNH 274773.

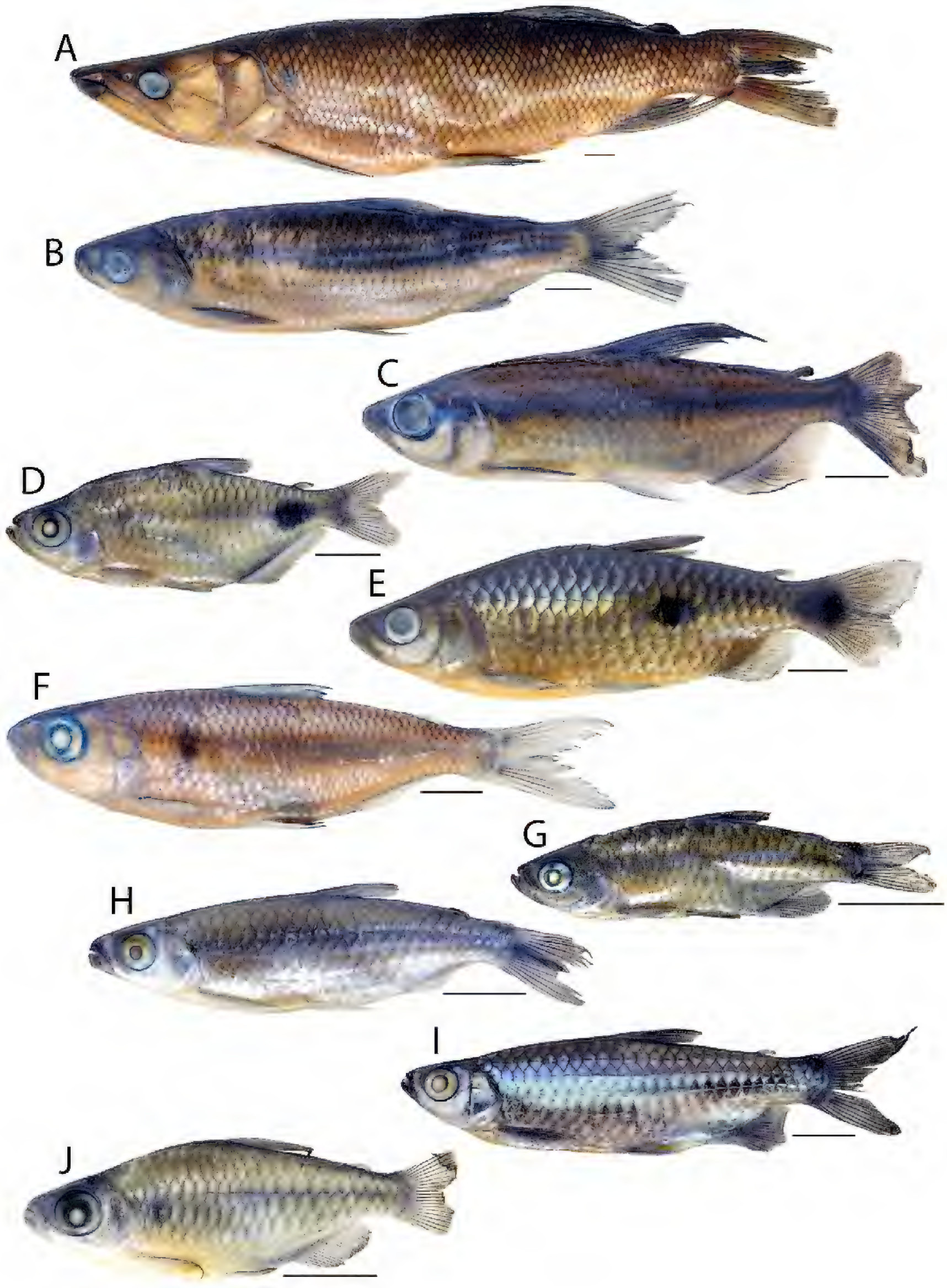

Figure 8. Representative species of genera collected in the region. **A.** *Hepsetus microlepis* (AMNH 269864). **B.** *Alestes liebrechtsii* (AMNH 274749). **C.** *Alestopetersius leopoldianus* (AMNH 274751). **D.** *Brachypetersius altus* (AMNH 274765). **E.** *Brycinus bimaculatus* (AMNH 274767). **F.** *Bryconaethiops microstoma* (AMNH 274773). **G.** *Clupeocharax schoutedeni* (AMNH 273775). **H.** *Micralestes stormsi* (AMNH 274778). **I.** *Rhabdalestes aeratis* (AMNH 274787). **J.** *Phenacogrammus interruptus* (AMNH 274784). Scale bar = 1 cm.

Identification. Large well-developed adipose eyelid envelops most of the eye leaving only a thin slit in the region of the pupil. Jaws with robust, molariform premaxillary inner row teeth, with a third row of molariform teeth. Lateral line positioned close to midline on body. Large humeral spot present, otherwise, body without additional spots or markings. Eye diameter a little less than snout length, 12 circumpeduncular scales.

***Clupeocharax schoutedeni* Pellegrin, 1926**
Figure 8G

Material examined. DEMOCRATIC REPUBLIC OF CONGO – **Mai-Ndombe Province** • Lomomo River near Kilako; 02°45′16.20″S, 017°56′06.66″E, 25.VII.2018; Stiassny et al. leg.; 2, 31.0–34.7 mm, AMNH 274774 • Lomomo River near confluence with Mfimi; 02°45′19.74″S, 017°55′55.80″E; 25.VII.2018; Stiassny et al. leg.; 3, 33.3–33.6 mm, AMNH 274775 • Site 5, Tshe River; 02°44′42.01″S, 017°44′ 33.87″E, VIII.2015; Monsembula et al. leg.; 4, 30.0–39.6 mm, AMNH 269862.

Identification. A small alestid with a single row of extremely small recurved unicuspid teeth in both jaws, and a lateral line reduced to 4–6 scales. Lower jaw large and prominent. Posterior part of body with narrow longitudinal band running along midline.

***Micralestes stormsi* Pellegrin, 1926**
Figure 8H

Material examined. DEMOCRATIC REPUBLIC OF CONGO – **Mai-Ndombe Province** • Mfimi River near Mongobele Bondjon; 02°47′20.88″S, 017°51′35.28″E; 24.VII.2018; Stiassny et al. leg.; 1, 52.3 mm, AMNH 274778.

Identification. Teeth multicuspidate, inner row premaxillary teeth narrow, never molariform and with a single cutting edge, two conical symphyseal inner row teeth on the dentary. Outer premaxillary teeth (6) not alternating with placement of inner tooth row, outer row symphyseal teeth on the dentary with an enlarged median cusp. Lateral line (23–24 pored scales) complete. Body silvery with a broad dark stripe becoming diffuse anteriorly, adipose fin black. There remains considerable confusion regarding the taxonomy of the numerous species of *Micralestes*, and much taxonomic work is needed. Poll (1962) remains the authoritative text, and Stiassny et al. (2007) provided a key to the species present in the lower Congo.

***Rhabdalestes aeratis* Stiassny & Schaefer, 2005**
Figure 8I

Material examined. DEMOCRATIC REPUBLIC OF CONGO – **Mai-Ndombe Province** • Vainya Lake; 02° 43′01.62″S, 017°38′31.50″E; 21.VII.2018; Stiassny et al. leg.; 4, 52.8–61.4 mm, AMNH 274787 • Nioki Port, main channel Mfimi River; 02°44′14.90″S, 017°41′ 07.49″E; VIII.2015; Monsembula et al. leg.; 5, 57.0–65.2 mm, AMNH 269866 • Molibampe River at Mpumpe; 02°42′08.43″S, 017°43′49.23″E; VIII.2015; Monsembula et al. leg.; 1, 56.4 mm, AMNH 269867 • Site 7, Tshe River, 02°45′05.94″S, 017°46′38.30″E, VIII.2015; Monsembula et al. leg.; 2, 51.9–52.4 mm, AMNH 269868.

Identification. Teeth multicuspidate, inner row premaxillary teeth narrow, never molariform and with a single cutting edge, no inner row teeth on the dentary. Outer premaxillary teeth usually five (occasionally 6) not alternating with placement of inner tooth row. Anal fin rays (14–15), 27–28 pored scales in a complete lateral line, and 17–19 gill rakers on the lower limb of the first arch.

***Phenacogrammus interruptus* (Boulenger, 1899)**
Figure 8J

Material examined. DEMOCRATIC REPUBLIC OF CONGO – **Mai-Ndombe Province** • Nioki Port main channel Mfimi; 02°43′25.40″S, 017°41′38.50″E; 22.VII. 2018; Stiassny et al. leg.; 1, 39.6 mm, AMNH 274781 • Mfimi at confluence with Ndombolo River; 02°47′ 26.30″S, 017°44′49.45″E; 22.VII.2018; Stiassny et al. leg.; 11, 24.3–45.8 mm, AMNH 274782 • River Munganza near Mongobele Mbongo Village; 02°47′58.26″S, 017° 51′51.12″E; 24.VII.2018; Stiassny et al. leg.; 6, 29.7–53.2 mm, AMNH 274783 • Lomomo River near Kilako; 02° 45′16.20″S, 017°56′06.66″E, 25.VII.2018; Stiassny et al. leg.; 2, 33.2–40.5 mm, AMNH 274784.

Identification. Teeth multicuspidate, inner row premaxillary teeth narrow, never molariform and with a single cutting edge, two symphyseal conical teeth form inner tooth on the dentary. Outer premaxillary teeth (4) alternating with placement of inner tooth row, lateral line incomplete (7–13 pored scales), 20–23 scales in longitudinal series, 4.5 above and 3.5 scale rows below the lateral line at the level of origin of the dorsal fin. Anal fin with 19–21 rays. Thin mid-lateral black band above a diffuse, often indistinct wider band.

Clariidae

***Channallabes apus* (Günther, 1873)**
Figure 9A

Material examined. DEMOCRATIC REPUBLIC OF CONGO – **Mai-Ndombe Province** • Vainya River; 02°43′14.41″S, 017°38′06.19″E; 21.VII.2018; Stiassny et al. leg.; 2, 235.8–270.0 mm, AMNH 274790 • Main channel Mfimi near Mpumpe Village; 02°39′00.48″S, 017°44′05.16″E; 22.VII.2018; Stiassny et al. leg.; 5, 242.6–265.0 mm, AMNH 274791 • Molibampe River, barrage drained and collected in mud; 02°36′52.44″S, 017°43′40.30″E; 22.VII.2018; Stiassny et al. leg.; 5, 195.0–215.5 mm, AMNH 274792 • Mingomi Stream near Ngenza Village, small channel with slow flow over mud.; 02°40′48.96″S, 017°39′16.14″E; 23.VII.2018; Stiassny et al. leg.; 7, 95.0–140.8 mm, AMNH 274793.

Identification. Body elongate and eel-like, elongate dorsal (100–110 rays) and anal (110–120 rays) fins lacking spines and confluent with caudal fin. Pectoral fin absent or vestigial, pelvic fin absent. Roof of neurocranium visible dorsally with separate, small anterior and posterior fontanels. Body coloration variable, light brown (often with rows of white pores visible) to almost black.

***Clariallabes variabilis* Pellegrin, 1926**
Figure 9B

Material examined. DEMOCRATIC REPUBLIC OF CONGO – **Mai-Ndombe Province** • Vainya River; 02°43′14.41″S, 017°38′06.19″E; 21.VII.2018; Stiassny

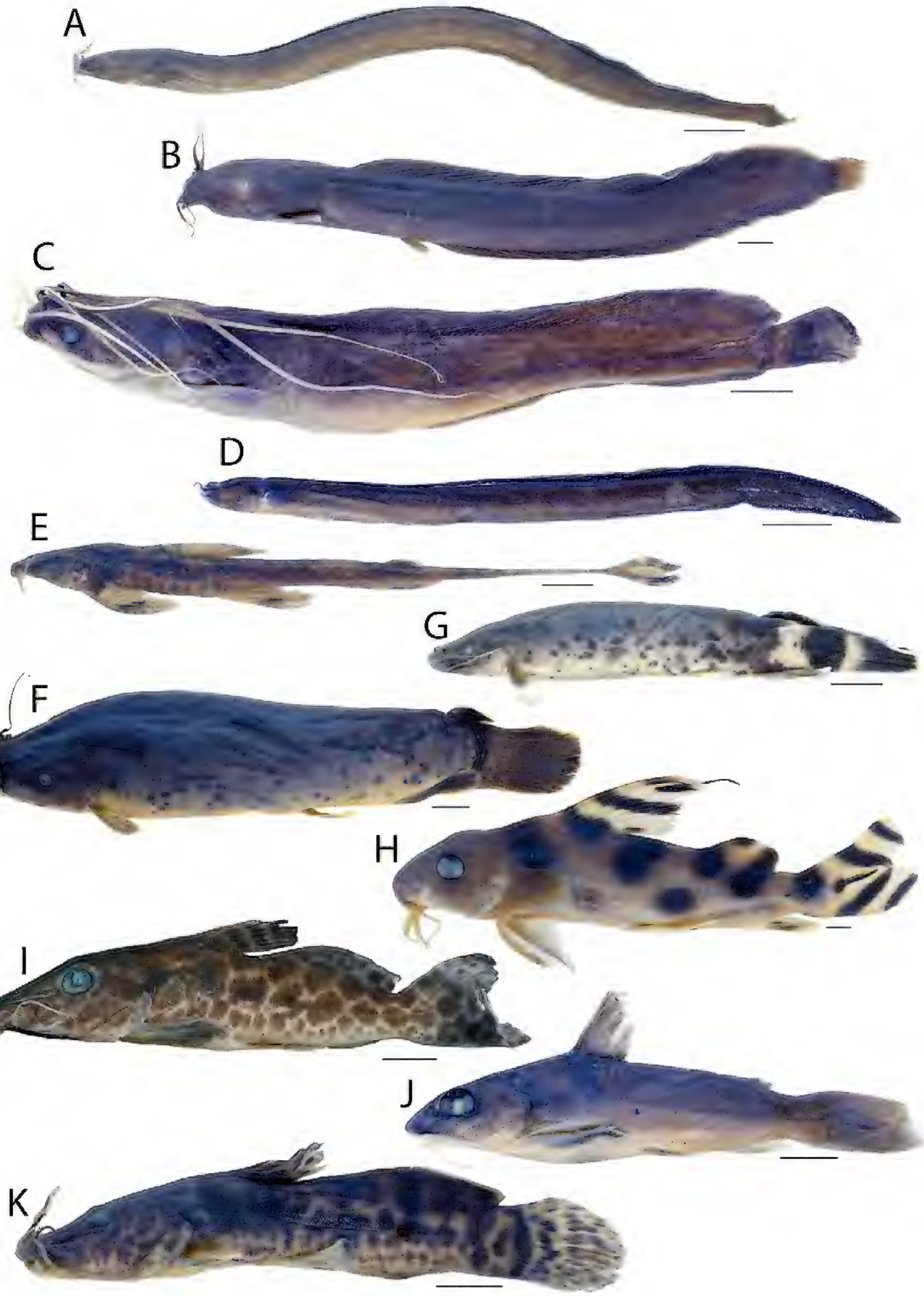

Figure 9. Representative species of genera collected in the region. **A.** *Channallabes apus* (AMNH 274793). **B.** *Clariallabes variabilis* (AMNH 274797). **C.** *Clarias buthupogon* (AMNH 274801). **D.** *Dolichallabes microphthalmus* (AMNH 274789). **E.** *Belonoglanis tenuis* (AMNH 274084). **F.** *Malapterurus monsembeensis* (AMNH 274087). **G.** *Paradoxoglanis caudovittatus* (AMNH 274090). **H.** *Synodontis decorus* (AMNH 274093). **I.** *Auchenoglanis occidentalis* (AMNH 269910). **J.** *Chrysichthys punctatus* (AMNH 274620). **K.** *Notoglanidium macrostoma* (AMNH 274612). Scale bar = 1 cm.

et al. leg.; 1, 128.5 mm, AMNH 274796 • Mfimi main channel, near Mpumpe Village; 02°38′45.01″S, 017°43′ 52.62″E; 23.VII.2018; Stiassny et al. leg.; 1, 170.8 mm, AMNH 274797.

Identification. Body relatively elongate, anal fin base considerably more than 50% of standard length, cheek exposed with no dorsal bony covering. Eye without a free border and covered with skin. Anal and dorsal fins

confluent, or nearly so, with the caudal fin. Distance from supraoccipital process to dorsal fin as long or longer than internal maxillary barbel length, and maxillary barbels long or longer than head.

***Clarias buthupogon* Sauvage, 1879**
Figure 9C

Material examined. DEMOCRATIC REPUBLIC OF CONGO – **Mai-Ndombe Province** • Main channel near Mutali Village, large seine across wide channel into reeds; 02°40′18.96″S, 017°44′12.12″E; 21.VII.2018; Stiassny et al. leg.; 1, 240.0 mm, AMNH 274800 • Tshe River near confluence with Mfimi; 02°44′39.98″S, 017°42′40.76″E; 21.VII.2018; Stiassny et al. leg.; 6, 98.5–125.0 mm, AMNH 274801 • Lomomo River near confluence with Mfimi; 02°45′19.74″S, 017°55′55.80″E; 25.VII.2018; Stiassny et al. leg.; 2, 165.0–260.0 mm, AMNH 274802.

Identification. Body relatively elongate, anal fin base less than 50% of standard length. Supraorbital contacts infraorbital series dorsally forming a bony covering. Pectoral spine strongly serrated on either side, extremely long barbels, length of maxillary barbel 140–310% of head length. Coloration generally dark, often with faint marbling and numerous small white pores irregularly distributed over the body.

***Dolichallabes microphthalmus* Poll, 1942**
Figure 9D

Material examined. DEMOCRATIC REPUBLIC OF CONGO – **Mai-Ndombe Province** • Tshe River near confluence with Mfimi; 02°44′39.98″S, 017°42′40.76″E; 21.VII.2018; Stiassny et al. leg.; 7, 80.6–125.8 mm, AMNH 274789.

Identification. Body extremely elongate and eel-like, dorsal, and anal fins lacking spines and confluent with pointed caudal fin. Pectoral fins present, sometimes vestigial, pelvic fins diminutive, sometimes absent. Roof of neurocranium extremely narrow with a single elongate fontanel visible dorsally, somewhat obscured by massively enlarged adductor mandibulae muscles in large individuals, snout blunt and rounded. Body coloration uniformly dark brown.

Amphiliidae

***Belonoglanis tenuis* Boulenger, 1902**
Figure 9E

Material examined. DEMOCRATIC REPUBLIC OF CONGO – **Mai-Ndombe Province** • Mfimi at confluence with Ndombolo River; 02°47′26.30″S, 018°44′49.45″E; 22.VII.2018; Stiassny et al. leg.; 11, 50.0–89.5 mm, AMNH 274084 • Mfimi River near Mongobele Bondjon; 02°47′20.88″S, 017°51′35.28″E; 24.VII.2018; Stiassny et al. leg.; 1, 59.2 mm, AMNH 274085 • Lomomo River near confluence with Mfimi; 02°45′19.74″S, 017°55′55.80″E; 25.VII.2018; Stiassny et al. leg.; 5, 78.2–129.6 mm, AMNH 274086.

Identification. Series of six or seven large bony scutes anterior to the pelvic fin, no spine present on the anterior margin of the adipose fin. Snout acutely pointed, three pairs of barbels short and papillose, no fontanelle on neurocranium, occipital process trilobate. Pectoral fins large, about as long as head, caudal peduncle extremely long and thin, caudal fin small and weakly emarginate. Black bar on pectoral, dorsal and pelvic fins.

Malapteruridae

***Malapterurus monsembeensis* Roberts, 2000**
Figure 9F

Material examined. DEMOCRATIC REPUBLIC OF CONGO – **Mai-Ndombe Province** • Mfimi at confluence with Ndombolo River; 02°47′26.30″S, 018°44′49.45″E; 22.VII.2018; Stiassny et al. leg.; 1, 128.3 mm, AMNH 274087.

Identification. Heavy, fleshy bodied, no fin spines, no dorsal fin, anal and adipose fins posteriorly displaced, lateral line complete. Head relatively depressed, lower jaw slightly protruding, with broad tooth-patches. Pectoral fins low on body and obliquely angled. Dorsum and flanks covered with numerous spots, rarely present ventrally on the body.

***Paradoxoglanis caudivittatus* Norris, 2002**
Figure 9G

Material examined. DEMOCRATIC REPUBLIC OF CONGO – **Mai-Ndombe Province** • Ndzaa River, near Mushimine Village; 02°58′25.08″S, 018°07′55.26″E; 25.VII.2018; Stiassny et al. leg.; 21, 64.5–127.5 mm, AMNH 274090.

Identification. Body fleshy, torpedo-shaped, no fin spines, no dorsal fin, adipose fin with relatively long base. Anal and adipose fins posteriorly displaced, lateral line incomplete terminating at level of pelvic fin. Dark marking proximally on the pectoral fin, body covered with numerous spots and blotches, well-developed caudal saddle and bar pattern on caudal peduncle and fin.

Mochokidae

***Synodontis decorus* Boulenger, 1899**
Figure 9H

Material examined. DEMOCRATIC REPUBLIC OF CONGO – **Mai-Ndombe Province** • Mfimi at confluence with Ndombolo River; 02°47′26.30″S, 018°44′49.45″E; 22.VII.2018; Stiassny et al. leg.; 1, 142.3 mm, AMNH 274093.

Identification. Mouth not modified into a sucker, eye with a free margin, caudal fin forked. Nasal barbels absent, single pair of maxillary barbels, two pairs of mandibular barbels bearing numerous ramified branches. Humeral process large, deep, and rounded posteriorly. Adipose fin base relatively short. Numerous small spots on head, and body pigmentation dominated by a few large spots and dorsal bars. Dorsal and caudal fins pale with prominent black bars.

Claroteidae

***Auchenoglanis occidentalis* (Boulenger, 1902)**
Figure 9I

Material examined. DEMOCRATIC REPUBLIC OF CONGO – **Mai-Ndombe Province** • Nioki Port, main channel Mfimi River; 02°44′14.90″S, 017°41′07.49″E; VIII.2015; Monsembula et al. leg.; 1, 82.4 mm, AMNH 269910.

Identification. Anterior nostril forming small tube located anteriorly on upper lip. Supraoccipital process massive and in contact with the first of three nuchal plates. Pointed snout, narrow mouth, eye large, head steeply inclined to dorsal fin. Premaxillary tooth plates closely set and ovoid. Caudal fin weakly forked. Body covered with irregularly shaped spots in a reticulated pattern, extending onto dorsal, caudal, and adipose fins, becoming faint or absent in large adults. Retzer (2010) revised the taxonomy of *Auchenoglanis* and based primarily on pigmentation patterning, assigned the Congo basin species to *A. wittei* Giltay, 1930. However, Fricke et al. (2021) did not recognize the taxonomic conclusions of Retzer (2010) and retained *A. occidentalis* for the central and lower Congo basin species.

***Chrysichthys punctatus* (Boulenger 1902)**
Figure 9J

Material examined. DEMOCRATIC REPUBLIC OF CONGO – **Mai-Ndombe Province** • Mfimi River near Mongobele Bondjon; 02°47′20.88″S, 017°51′35.28″E; 24.VII.2018; Stiassny et al. leg.; 2, 66.4–68.5 mm, AMNH 274622 • Lomomo River near Kilako; 02°45′16.20″S, 017°56′06.66″E, 25.VII.2018; Stiassny et al. leg.; 3, 46.2–55.0 mm, AMNH 274623 • Main channel near Mutali Village, large seine across wide channel into reeds; 02°40′18.96″S, 017°44′12.12″E; 21.VII.2018; Stiassny et al. leg.; 3, 84.9–92.6 mm, AMNH 274620 • Lebee River near Mosomba Village; 02°46′49.17″S, 017°58′09.79″E; 25.VII.2018; Stiassny et al. leg.; 1, 72.4 mm, AMNH 274624.

Identification. Adipose fin small, soft without ossification, accessory tooth plates on palatine and vomer present. Caudal fin weakly forked. Four pairs of barbels, nasal barbel short. Sixteen–21 gill rakers on first arch. Head and flanks scattered with irregular spots and patches of melanophores. Some specimens uniformly dark, almost black, with just a few spots ventrally.

***Notoglanidium macrostoma* (Pellegrin, 1909)**
Figure 9K

Material examined. DEMOCRATIC REPUBLIC OF CONGO – **Mai-Ndombe Province** • Main channel Mfimi River; 02°43′25.4″S, 017°41′38.50″E; 20.VII.2018; Stiassny et al. leg.; 1, 70.2 mm, AMNH 274612 • Ndzaa River, near Mushimine Village; 02°58′25.08″S, 018° 07′55.26″E; 25.VII.2018; Stiassny et al. leg.; 1, 67.5 mm, AMNH 274613 • Site 5, Tshe River; 02°44′42.01″S, 017°44′33.87″E, VIII.2015; Monsembula et al. leg.; 1, 86.0 mm, AMNH 269909.

Identification. Anterior nostril tubular located anteriorly on upper lip. Dorsoventrally depressed, eye small dorsally positioned on head, and without free border. First nuchal plate widely separated from supraoccipital process. Caudal fin rounded. Dorsal fin high and rounded, 7 branched rays. Numerous dark spots and blotches on head, body, and fins, often aligned into transverse bands on the flanks. Based on a suit of morphological features Geerinckx et al. (2013) synonymized the genera *Liauchenoglanis*, *Platyglanis* and *Anaspidoglanis* with *Notoglanidium*, but the interrelationships of this group remain unresolved and in need of investigation.

***Parauchenoglanis punctatus* (Boulenger, 1902)**
Figure 10A

Material examined. DEMOCRATIC REPUBLIC OF CONGO – **Mai-Ndombe Province** • Mfimi at confluence with Ndombolo River; 02°47′26.30″S, 018°44′49.45″E; 22.VII.2018; Stiassny et al. leg.; 3, 88.0–131.2 mm, AMNH 274626.

Identification. Anterior nostril tubular and located anteriorly on upper lip. First nuchal plate thin and needle-like. Eyes small, with free border and positioned dorsolaterally on head. Caudal fin truncate or subtruncate, caudal peduncle short with depth twice the horizontal distance between adipose and caudal-fin bases. Pectoral spine serrated along anterior margin. Barbels long, external mandibular barbel reaching to tip of pectoral spine. Pigmentation patterning consisting of 6–10 vertical rows of black dots. Geerinckx et al. (2004) provided a revision of *Parauchenoglanis*.

Schilbeidae

***Parailia congica* Boulenger, 1899**
Figure 10B

Material examined. DEMOCRATIC REPUBLIC OF CONGO – **Mai-Ndombe Province** • Mfimi at confluence with Ndombolo River; 02°47′26.30″S, 018°44′49.45″E; 22.VII.2018; Stiassny et al. leg.; 2, 39.7–53.6 mm, AMNH 274628 • Mfimi River near Mongobele Bondjon; 02°47′ 20.88″S, 017°51′35.28″E; 24.VII.2018; Stiassny et al. leg.; 4, 45.1–61.7 mm, AMNH 274629 • River Munganza near Mongobele Mbongo Village; 02°47′58.26″S, 017°51′ 51.12″E; 24.VII.2018; Stiassny et al. leg.; 1, 45.0 mm, AMNH 274630 • Lomomo River near Kilako; 02°45′ 16.20″S, 017°56′06.66″E, 25.VII.2018; Stiassny et al. leg.; 14, 51.2–56.5 mm, AMNH 274631 • Lebee River near Mosomba Village; 02°46′49.17″S, 017°58′09.79″E; 25.VII. 2018; Stiassny et al. leg.; 9, 46.5–59.0 mm, AMNH 274632.

Identification. Body strongly laterally compressed, dorsal and adipose fins absent, inner surface of pectoral spine smooth without serrations. Abdomen short, anal fin extremely long (70–90 rays). Body coloration varies from pale brown to almost uniformly black.

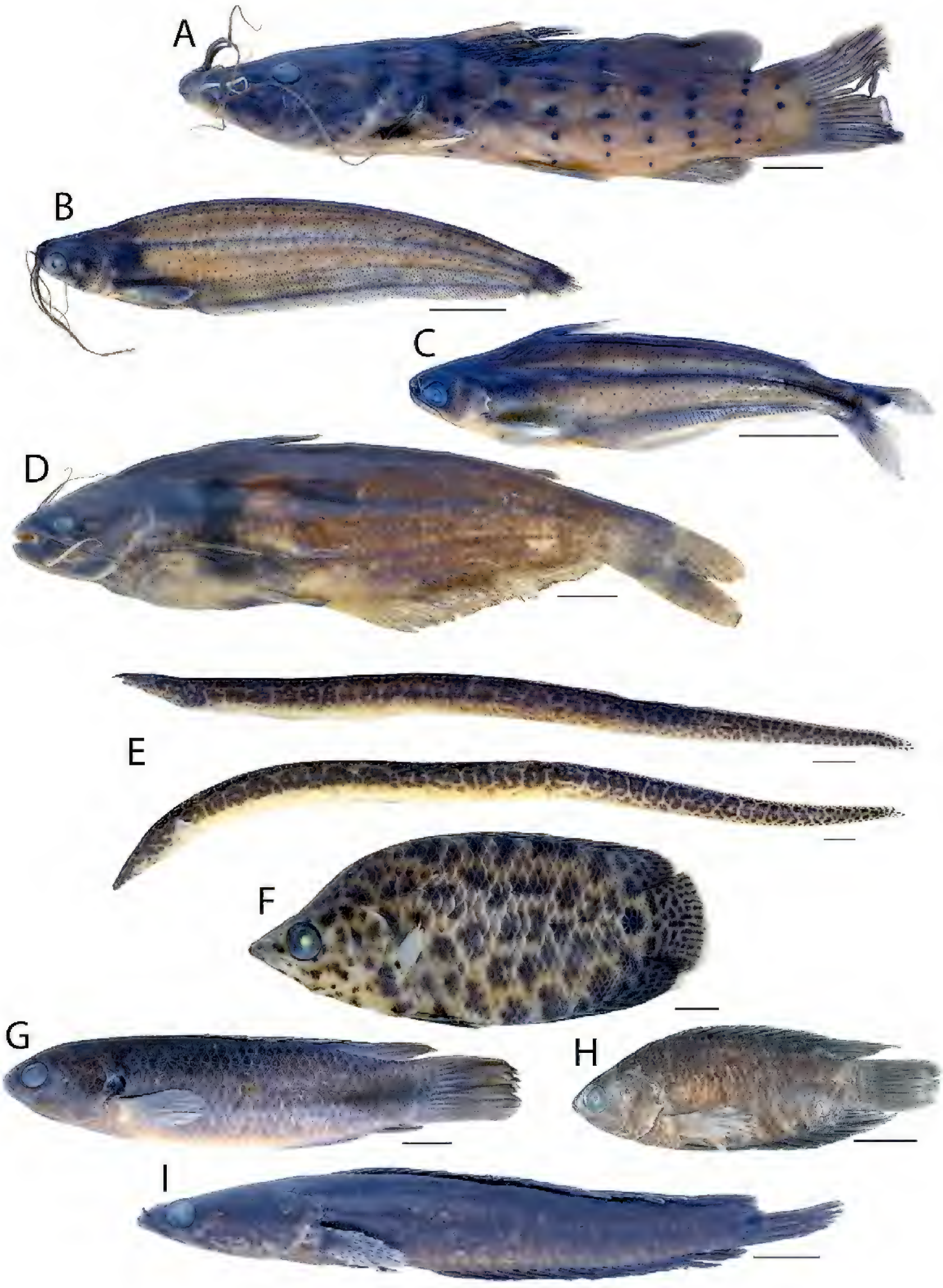

Figure 10. Representative species of genera collected in the region. **A.** *Parauchenoglanis punctatus* (AMNH 274426). **B.** *Parailia congica* (AMNH 274633). **C.** *Pareutropius debauwi* (AMNH 274636). **D.** *Schilbe yangambianus* (AMNH 274648). **E.** *Mastacembelus greshoffi* (AMNH 274674, 274678). **F.** *Ctenopoma acutirostre* (AMNH 274680). **G.** *Ctenopoma nigropannosum* (AMNH 274683). **H.** *Microctenopoma fasciolatum* (AMNH 274696). **I.** *Parachanna insignis* (AMNH 274706). Scale bar = 1 cm.

***Pareutropius debauwi* (Boulenger, 1900)**

Figure 10C

Material examined. DEMOCRATIC REPUBLIC OF CONGO – **Mai-Ndombe Province** • Mfimi at confluence with Ndombolo River; 02°47′26.30″S, 018°44′49.45″E; 22.VII.2018; Stiassny et al. leg.; 9, 42.6–51.8 mm, AMNH 274634 • River Munganza near Mongobele Mbongo Village; 02°47′58.26″S, 017°51′51.12″E; 24.VII.2018; Stiassny et al. leg.; 5, 38.2–47.6 mm, AMNH 274636 • Lomomo River, near confluence with Mfimi;

02°45′19.74″S, 017°55′55.80″E; 25.VII.2018; Stiassny et al. leg.; 10, 39.8–72.4 mm, AMNH 274638 • Ndzaa River, near Mushimine Village; 02°58′25.08″S, 018°07′55.26″E; 25.VII.2018; Stiassny et al. leg.; 3, 58.0–63.2mm, AMNH 274639.

Identification. Body laterally compressed, particularly so posteriorly, dorsal fin with 3–4 rays, adipose fin present. A single pair of mandibular barbels, and a dark black midlateral band.

***Schilbe yangambianus* (Poll, 1954)**
Figure 10D

Material examined. DEMOCRATIC REPUBLIC OF CONGO – **Mai-Ndombe Province** • Ndzaa River, near Mushimine Village; 02°58′25.08″S, 018°07′55.26″E; 25.VII.2018; Stiassny et al. leg.; 1, 102.5 mm, AMNH 274648.

Identification. Body laterally compressed, particularly so posteriorly, dorsal fin with 5–6 rays, adipose fin present. Anterior nostrils at the same distance or closer to each other than are the posterior nostrils, nasal barbel long, reaching beyond opercular border. Body coloration brown with irregular marbling along the flanks and a very dark blotch above the pectoral spine (inner side of spine weakly serrated). De Vos (1995) noted a series of differences in meristic and morphological features between *S. yangambianus* from the Kasai-Kwango as compared with those from the Middle Congo.

Mastacembelidae

***Mastacembelus greshoffi* Boulenger, 1901**
Figure 10E

Material examined. DEMOCRATIC REPUBLIC OF CONGO – **Mai-Ndombe Province** • Ndzaa River, near Mushimine Village; 02°58′25.08″S, 018°07′55.26″E; 25.VII.2018; Stiassny et al. leg.; 3, 79.4–87.0 mm, AMNH 274672 • Tshe River near confluence with Mfimi; 02°44′39.98″S, 017°42′40.76″E; 21.VII.2018; Stiassny et al. leg.; 9, 112.0–185.4 mm, AMNH 274674 • Vainya Lake; 02°43′10.35″S, 017°38′35.96″E; 22.VII.2018; Stiassny et al. leg.; 8, 145.8–154.5 mm, AMNH 274676 • Mfimi at confluence with Ndombolo River; 02°47′26.30″S, 018°44′49.45″E; 22.VII.2018; Stiassny et al. leg.; 3, 85.5–122.8 mm, AMNH 274677 • Purchased at Nioki Port Market; 24.VII.2018; Stiassny et al. leg.; 1, 255.5 mm, AMNH 274678 • Lomomo River, near confluence with Mfimi; 02°45′19.74″S, 017°55′55.80″E; 25.VII.2018; Stiassny et al. leg.; 3, 72.8–186.5 mm, AMNH 274679.

Identification. Anguilliform, tubular body, tapering to a narrow, somewhat pointed caudal fin. Prominent rostral appendage bearing a tubular nostril on either side of a central rostral tentacle. Twenty-nine–33 detached, erectile spines in front of soft dorsal and two in front of soft anal fins. Dorsal and anal fins elongate and confluent with caudal fin. Strong preorbital spine, 3–4 preopercular spines. Coloration dusky brown, with blotches, marbling, and reticulations on the body, and over the entire postanal length. Numerous small spots fringing the posterior dorsal and anal fins and around the caudal fin. Vreven (2001) noted variation in color patterning between populations of *M. greshoffi* from around Pool Malebo and those from the central Congo, most notably in the presence of larger, rectangular, or more hexagonal markings restricted to the midline, in central Congo populations. Specimens in our collections exhibit both patterns of pigmentation.

Anabantidae

***Ctenopoma acutirostre* Pellegrin, 1899**
Figure 10F

Material examined. DEMOCRATIC REPUBLIC OF CONGO – **Mai-Ndombe Province** • Mfimi main channel around Nioki Port; 02°43′25.4″S, 017°41′38.5″E; 21.VII.2018; Stiassny et al. leg.; 2, 28.6–73.2 mm, AMNH 274680 • Kutu Port; 02°43′27.91″S, 018°09′42.34″E; VIII.2015; Monsembula et al. leg.; 2, 57.0–85.6 mm, AMNH 269975.

Identification. Deep-bodied, snout acute, mouth large with ascending process of premaxilla extending beyond middle of the orbit, visible in interorbital space. Scales ctenoid, lateral line interrupted, 3.5 scale rows between upper lateral line and dorsal fin. Caudal fin with 16 segmented rays. Large dark brown spots irregularly spaced on flanks and head.

***Ctenopoma nigropannosum* Reichenow, 1875**
Figure 10G

Material examined. DEMOCRATIC REPUBLIC OF CONGO – **Mai-Ndombe Province** • Molibampe River, barrage drained and collected in mud; 02°36′52.44″S, 017°43′40.30″E; 22.VII.2018; Stiassny et al. leg.; 9, 73.0–98.5 mm, AMNH 274683 • Mfimi main channel, near Mpumpe Village; 02°38′45.01″S, 017°43′52.62″E; 23.VII.2018; Stiassny et al. leg.; 8, 63.0–80.3 mm, AMNH 274685 • Ndzaa River, near Mushimine Village; 02°58′25.08″S, 018°07′55.26″E; 25.VII.2018; Stiassny et al. leg.; 4, 52.5–66.6 mm, AMNH 274686.

Identification. Body elongate and robust, not distinctly deeper at dorsal-fin origin, snout blunt and rounded, premaxillary process not reaching beyond orbit. Scales ctenoid, lateral line interrupted. Single coronal pore in interocular space, caudal fin with 14 segmented rays. Pelvic fins without pigmentation, dark oblong bar often present on caudal peduncle.

***Microctenopoma fasciolatum* (Boulenger, 1899)**
Figure 10H

Material examined. DEMOCRATIC REPUBLIC OF CONGO – **Mai-Ndombe Province** • Nioki Port main channel Mfimi; 02°43′25.40″S, 017°41′38.50″E; 20.VII.2018; Stiassny et al. leg.; 2, 41.3–58.0 mm, AMNH 274692 • Ndzaa River, near Mushimine Village; 02°58′25.08″S, 018°07′55.26″E; 25.VII.2018; Stiassny et al. leg.;

2, 34.4–37.5 mm, AMNH 274693 • Vainya River; 02° 43′14.41″S, 017°38′06.19″E; 21.VII.2018; Stiassny et al. leg.; 4, 36.6–48.1 mm, AMNH 274694 • Mingomi Stream near Ngenza Village, small channel slow flow over mud.; 02°40′48.96″S, 017 39′16.14″E; 23.VII.2018; Stiassny et al. leg.; 26, 28.2–48.5 mm, AMNH 274696.

Identification. Deep-bodied (depth 30–45% of standard length), dorsal head profile steep to dorsal fin, snout short, ascending process of premaxilla not extending to the orbit. Scales ctenoid, lateral line interrupted, 24–27 scales in longitudinal series. A pair of coronal pores in interocular space, caudal fin with 14 segmented rays. Caudal peduncle very short, bars on flanks well defined.

Channidae

***Parachanna insignis* (Sauvage, 1884)**
Figure 10I

Material examined. DEMOCRATIC REPUBLIC OF CONGO – **Mai-Ndombe Province** • Tshe River near confluence with Mfimi; 02°44′39.98″S, 017°42′40.76″E; 21.VII.2018; Stiassny et al. leg.; 3, 63.4–222.0 mm, AMNH 274704 • Vainya Lake; 02°43′14.41″S, 017°38′06.19″E; 21.VII.2018; Stiassny et al. leg.; 7, 55.8–86.9 mm, AMNH 274705 • Mfimi at confluence with Ndombolo River; 02°47′26.30″S, 018°44′49.45″E; 22.VII.2018; Stiassny et al. leg.; 2, 63.4–79.8 mm, AMNH 274707.

Identification. Body elongate and laterally compressed posteriorly, small cycloid scales covering body, somewhat larger on head, unpaired fins long based without spines. Snout acute, eyes large, anterior nostrils tubular. Twenty-five–33 scales in transverse series between dorsal and anal-fin origin. Lateral line complete, located along midline with 70–86 pored scales.

Cichlidae

***Congochromis sabinae* (Lamboj, 2005)**
Figure 11A

Material examined. DEMOCRATIC REPUBLIC OF CONGO – **Mai-Ndombe Province** • Mingomi Stream near Ngenza Village, small channel slow flow over mud.; 02°40′48.96″S, 017°39′16.14″E; 23.VII.2018; Stiassny et al. leg.; 78, 28.0–42.9 mm, AMNH 274812 • River Munganza near Mongobele Mbongo Village; 02°47′58.26″S, 017°51′51.12″E; 25.VII.2018; Stiassny et al. leg.; 6, 26.5–41.4 mm, AMNH 274813 • Ndzaa River, near Mushimine Village; 02°58′25.08″S, 018 07′55.26″E; 25.VII.2018; Stiassny et al. leg.; 2, 28.3–29.5 mm, AMNH 274814.

Identification. Lateral line interrupted, at level of pelvic fin insertion upper branch separated from dorsal fin by two scale rows, single nostril. Well-developed, visor-like hanging pad on the pharynx roof. Relatively robust, unicuspid teeth in both jaws, six preopercular pores. Robust rounded snout and nape. Dark longitudinal stripe not extending onto the caudal fin.

***Coptodon congica* (Poll & Thys van den Audenaerde, 1960)**
Figure 11B

Material examined. DEMOCRATIC REPUBLIC OF CONGO – **Mai-Ndombe Province** • Main channel near Mutali Village, large seine across wide channel into reeds; 02°40′18.96″S, 017°44′12.12″E; 21.VII.2018; Stiassny et al. leg.; 4, 78.3–168.0 mm, AMNH 274816 • Vainya Lake; 02°43′10.35″S, 017°38′35.96″E; 22.VII.2018; Stiassny et al. leg.; 3, 87.6-–110.4 mm, AMNH 274818 • Lomomo River near Kilako; 02°45′16.20″S, 017°56′06.66″E, 25.VII.2018; Stiassny et al. leg.; 1, 67.0 mm, AMNH 274746.

Identification. Lateral line interrupted, single pair of nostrils. Deep bodied, outer row teeth on both jaws robust bicuspids, teeth in inner rows smaller and tricuspid. First gill arch short and rounded, with 11–14 rakers. Lower pharyngeal jaw as wide as long. Large males often with prominent nuchal hump. Coloration overall uniformly dark, caudal fin scaled proximally. Dunz and Schliewen (2013) provided a revised classification of haplotilapiine cichlids formerly referred to “Tilapia”.

***Hemichromis lifalili* Loiselle, 1979**
Figure 11C

Material examined. DEMOCRATIC REPUBLIC OF CONGO – **Mai-Ndombe Province** • Tshe River near confluence with the Mfimi; 02°44′39.98″S, 017°42′40.76″E; 21.VII.2018; Stiassny et al. leg.; 5, 47.3–71.0 mm, AMNH 274825 • Vainya Lake; 02°43′10.35″S, 017°38′35.96″E; 22.VII.2018; Stiassny et al. leg.; 37, 21.0–53.5 mm, AMNH 274828 • Mingomi Stream near Ngenza Village, small channel slow flow over mud.; 02°40′48.96″S, 017°39′16.14″E; 23.VII.2018; Stiassny et al. leg.; 15, 25.0–49.3 mm, AMNH 274830.

Identification. Lateral line interrupted, single pair of nostrils. Relatively deep bodied, outer row teeth on both jaws robust, conical unicuspids, teeth in inner rows smaller. Prominent black spot on opercle and second large spot at midbody located entirely above the lower lateral line, no black spot posteriorly in the dorsal fin. Scales cycloid, 25–27 in longitudinal series. Head profile strongly convex, with tendency toward a nuchal hump in large males. Loiselle (1979) provided the most recent revisional study of the two-spotted, jewel cichlids of the genus *Hemichromis*. However, considerable taxonomic confusion persists within this group, and definitive identification remains problematical.

***Nanochromis transvestitus* Stewart & Roberts, 1984**
Figure 11D, E

Material examined. DEMOCRATIC REPUBLIC OF CONGO – **Mai-Ndombe Province** • Mfimi at confluence with Ndombolo River; 02°47′26.30″S, 018°44′49.45″E; 22.VII.2018; Stiassny et al. leg.; 10, 26.5–37.3 mm, AMNH 274834.

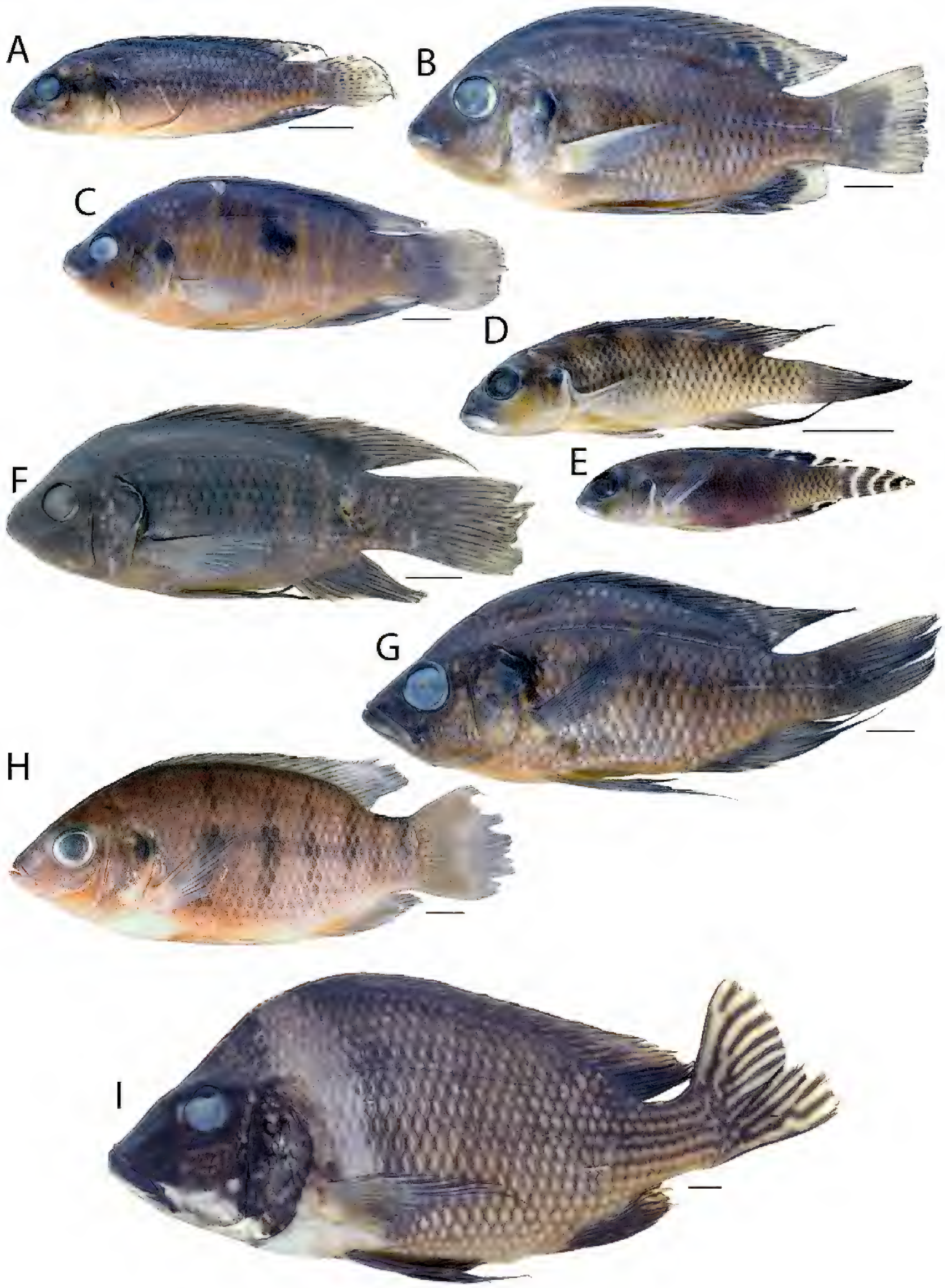

Figure 11. Representative species of genera collected in the region. **A.** *Congochromis sabinae* (AMNH 274811). **B.** *Coptodon congicus* (AMNH 274818). **C.** *Hemichromis lifalili* (AMNH 274825). **D.** *Nanochromis transvestitus* (AMNH 274834, male). **E.** *Nanochromis transvestitus* (AMNH 274834, female). **F.** *Pelmatochromis nigrofasciatus* (AMNH 274840). **G.** *Pterochromis congicus* (AMNH 274842). **H.** *Sarotherodon galileaus boulengeri* (AMNH 274847). **I.** *Tylochromis pulcher* (AMNH 274848). Scale bar = 1 cm.

Identification. Lateral line interrupted, at level of pelvic fin insertion upper branch contiguous with dorsal fin or separated by a single scale row, single nostril. Well-developed, visor-like hanging pad on the pharynx roof. Fine, unicuspid teeth in both jaws, seven preopercular pores. Strongly sexually dimorphic, females (Fig. 11E), considerably smaller than males, soft dorsal, anal, and caudal fin with prominent white bars. Males (Fig. 11D) with 5–6 dark bars on the dorsum extending to midline on flanks. Lips in both sexes white.

***Pelmatochromis nigrofasciatus* (Pellegrin, 1900)**
Figure 11F

Material examined. DEMOCRATIC REPUBLIC OF CONGO – **Mai-Ndombe Province** • Molibampe River, wide channels through dense grasses; 02°36′55.86″S, 017°43′45.30″E; 21.VII.2018; Stiassny et al. leg.; 1, 46.6 mm, AMNH 274837 • Vainya Lake; 02°43′01.62″S, 017°38′31.50″E; 25.VII.2018; Stiassny et al. leg.; 1, 53.3 mm, AMNH 274838 • Mingomi Stream near Ngenza Village, small channel with slow flow over mud.; 02°40′48.96″S, 017°39′16.14″E; 23.VII.2018; Stiassny et al. leg.; 23, 44.5–69.5 mm, AMNH 274840.

Identification. Lateral line interrupted, single pair of nostrils. Deep bodied, snout rounded, jaws isognathous, outer row teeth on both jaws robust conical unicuspid, sometimes shouldered in adults, notched in juveniles, teeth in inner rows smaller. Scales cycloid, 24–26 in longitudinal series. Black spot posteriorly in soft dorsal fin extending down onto dorsum of body. First gill arch with 10–14 rakers on elongate lower limb.

***Pterochromis congicus* (Boulenger, 1897)**
Figure 11G

Material examined. DEMOCRATIC REPUBLIC OF CONGO – **Mai-Ndombe Province** • Vainya Lake; 02°43′10.35″S, 017°38′35.96″E; 22.VII.2018; Stiassny et al. leg.; 3, 122.4–128.9 mm, AMNH 274844 • Mfimi at confluence with Ndombolo River; 02°47′26.30″S, 018°44′49.45″E; 22.VII.2018; Stiassny et al. leg.; 1, 76.0 m AMNH 274845 • Lomomo River, near confluence with Mfimi; 02°45′19.74″S, 017°55′55.80″E; 25.VII.2018; Stiassny et al. leg.; 1, 75.6 mm, AMNH 274846.

Identification. Lateral line interrupted, single pair of nostrils. Relatively deep bodied, snout acute, eye and mouth large, premaxillary pedicel reaching to above orbit, outer row teeth on both jaws small, conical unicuspids, teeth in inner rows smaller. No visor-like hanging pad in the pharynx, 15–17 elongate gill rakers along lower limb of first arch. Scales cycloid, cheek deep with 6–7 scale rows, 24–25 scales in longitudinal series. Pectoral fins long and narrow, almost reaching level of first anal-fin spine, caudal fin truncate.

***Sarotherodon galilaeus boulengeri* (Pellegrin, 1903)**
Figure 11H

Material examined. DEMOCRATIC REPUBLIC OF CONGO – **Mai-Ndombe Province** • Vainya Lake; 02°43′10.35″S, 017°38′35.96″E; 22.VII.2018; Stiassny et al. leg.; 1, 54.5 mm, AMNH 274847.

Identification. Lateral line interrupted, single pair of nostrils. Relatively deep-bodied, snout short, jaws isognathous, outer row teeth on both jaws fine, long-necked, mobile bicuspids, multiple inner rows of small tricuspid teeth. Scales cycloid, scales between pectoral and pelvic fins grade gradually in size with flank scales, 26–28 in longitudinal series. First gill arch short and rounded, with 20–27 thin gill rakers. Lower pharyngeal jaw much longer than wide. Caudal fin densely scaled. Five–6 irregular dark bars extending well-below the midline are often present. While Fricke et al. (2021) did not recognize subspecies of *S. galilaeus*, we follow Trewavas (1983) in recognizing *S. g. boulengeri* as a valid subspecies with a distribution restricted to the central Congo basin.

***Tylochromis pulcher* Stiassny, 1989**
Figure 11I

Material examined. DEMOCRATIC REPUBLIC OF CONGO – **Mai-Ndombe Province** • Mfimi River near Mongobele Bondjon; 02°47′20.88″S, 017°51′35.28″E; 24. VII.2018; Stiassny et al. leg.; 1, 62.8 mm, AMNH 274849 • Nioki Harbor main channel Mfimi River; 02° 44′10.87″S, 017°40′47.46″E; VII.2015; Monsembula et al. leg.; 2, 100.8–115.8 mm, AMNH 269969 • Molibampe River at Mpumpe; 02°42′08.43″S, 017°43′49.23″E; VIII.2015; Monsembula et al. leg.; 1, 158.5 mm, AMNH 269972 • purchased at Nioki Port Market, 21 July 2018, Stiassny et al. leg.; 3, 179.5–186.7 mm, AMNH 274848.

Identification. Lateral line disjunct, lower line extends anteriorly far beneath the upper line and posteriorly ends in a trifurcation over the caudal fin. Very deep bodied, single pair of nostrils, mouth large, unicuspid teeth in both jaws. Three anal fin spines, first spine very short, second spine elongate and almost as long as third. Lower pharyngeal jaw slender and gracile. Well-developed, visor-like hanging pad on the pharynx roof, 17–18 overlapping gill rakers along the lower limb of the first arch. Mature males with prominent oblique band behind head, pelvic fin uniformly black without pale maculae.

Nothobranchiidae

***Aphyosemion cognatum* Meinken, 1951**
Figure 12A

Material examined. DEMOCRATIC REPUBLIC OF CONGO – **Mai-Ndombe Province** • Mingomi Stream near Ngenza Village, small channel slow flow over mud.; 02°40′48.96″S, 017°39′16.14″E; 23.VII.2018; Stiassny et al. leg.; 173, 12.0–29.5 mm, AMNH 274666.

Identification. Distance between eye and last preopercular opening almost as large as eye diameter, preopercular canal tubular with six pores, lower jaw narrow and not expanded anteroventrally. Pectoral fins inserted low, below midline on body. Relatively robust, many red spots often arranged in horizontal rows along the flanks and fins. In life dorsal and caudal fins with light blue margins.

***Epiplatys chevalieri* (Pellegrin, 1904)**
Figure 12B

Material examined. DEMOCRATIC REPUBLIC OF CONGO – **Mai-Ndombe Province** • Ndzaa River, near Mushimine Village; 02°58′25.08″S, 018°07′55.26″E; 25.VII.2018; Stiassny et al. leg.; 1, 39.4 mm, AMNH 274670 • River Munganza near Mongobele Mbongo Village; 02°47′58.26″S, 017°51′51.12″E; 25. River Munganza near Mongobele Mbongo Village; 02° 47′ 58.26″S 017°

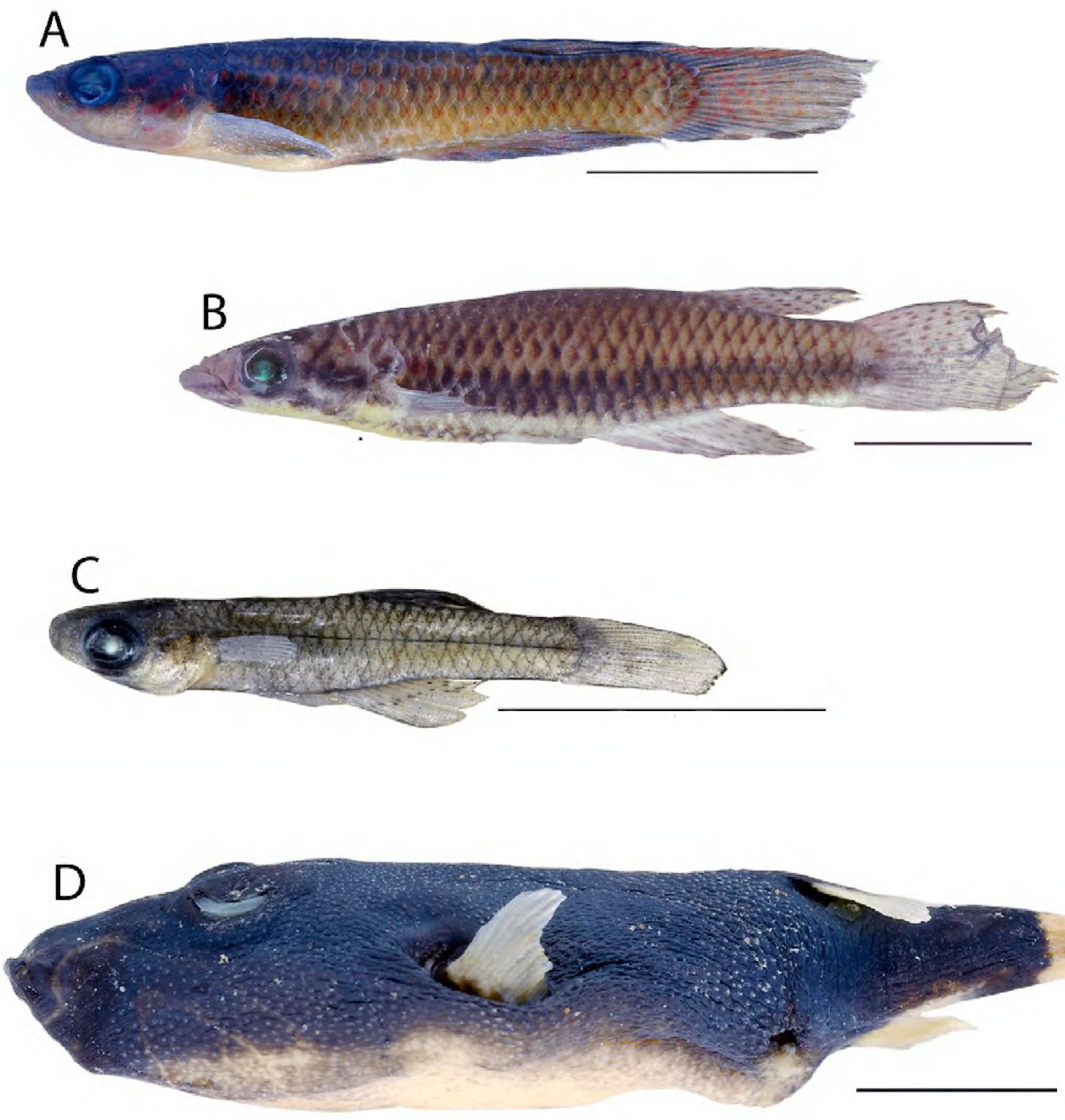

Figure 12. Representative species of genera collected in the region. **A.** *Aphyosemion cognatum* (AMNH 274666). **B.** *Epiplatys chevalierei* (AMNH 274670). **C.** *Congopanchax brichardi* (AMNH 274668). **D.** *Tetraodon miurus* (AMNH 274665). Scale bar = 1 cm.

51′ 51.12″E; 25.VII.2018; Stiassny et al. leg.; 2, 30.0–32.0 mm, AMNH 274853.

Identification. Distance between eye and last preopercular opening almost as large as eye diameter, preopercular canal tubular with five pores, lower jaw broadly expanded anteroventrally. Pectoral fins inserted low, below midline on body. Dorsal (7–8 rays) and anal (13–15 rays) set well back on body. In preservation large dark band below midline from opercle to base of caudal fin, in life numerous lines of red spots on body and fins. Van Der Zee et al. (2013) recognize the subspecies *E. chevalieri nigricans* (Boulenger, 1913) for specimens from eastern and central Congo, including those in the current collection, and *E. c. chevalieri* (Pellegrin, 1904) for *E. chevalieri* from around Pool Malebo and western regions.

Procatopodidae

***Congopanchax brichardi* Poll, 1971**
Figure 12D

Material examined. DEMOCRATIC REPUBLIC OF CONGO – **Mai-Ndombe Province** • Molibampe River, wide channels through dense grasses; 02°36′55.86″S, 017° 43′45.30″E; 21.VII.2018; Stiassny et al. leg.; 2, 12.0–16.1 mm, AMNH 274667 • Mfimi at confluence with Ndombolo River; 02°47′26.30″S, 018°44′49.45″E; 22. Mfimi at confluence with Ndombolo River; 02°47′26.30″S, 018° 44′49.45″E; 22.VII.2018; Stiassny et al. leg.; 22, 12.5–18.4 mm, AMNH 274668.

Identification. Distance between eye and last preopercular opening very small, pore adjacent to posterior margin of eye. Pectoral fin insertion high, at or near midline. Preorbital sensory canal with two pores. Dorsal fin origin above, or just behind anal fin origin. Extremely small, translucent in life with orange anal and caudal fins.

Tetraodontidae

***Tetraodon miurus* Boulenger, 1902**
Figure 12D

Material examined. DEMOCRATIC REPUBLIC OF CONGO – **Mai-Ndombe Province** • Nioki Port main channel Mfimi; 02°43′25.40″S, 017°41′38.50″E; 20.VII. 2018; Stiassny et al. leg.; 1, 50.2 mm, AMNH 274665.

Identification. Body rotund, skin covered with minute, erectile spines, teeth coalesced forming a beak, pelvic fins absent. Head as long as broad, snout obtusely pointed, two nasal tentacles on either side of snout in front of eyes. Lateral line system on head and body located in deep furrows. Dorsally dark brownish black, pale ventrally. Pectoral, dorsal, anal, and caudal fins creamy white.

Discussion

Due to the lack of published information on the ichthyofauna of the Mfimi basin and surrounding regions we utilized data from the most recent IUCN assessment of the status and distribution of central African fishes (Brooks et al. 2011; with distribution maps available online at https://www.iucnredlist.org/). Additionally, we augmented these with data from an additional online mapping resource (Paugy et al. 2008) as a rough guide to the presumptive ranges of all species reported here for the Mfimi. The IUCN assessment is a compilation of point data drawn from Stiassny et al. (2007) and from legacy collections housed in the Africa Museum, Tervuren (MRAC) and the American Museum of Natural History, New York (AMNH) reviewed by taxonomic experts prior to publication (Darwall and Smith 2011). While these comparative data are minimal for the Mfimi River itself, they do provide estimated ranges for fishes from the Kasai main channel and major tributaries, and to a limited extent also for the Cuvette Centrale, and the main channel of the Congo River. Additionally, we incorporated a review of two recently published checklists, Mbimbi Mayi Munene and Stiassny (2011) for the Kwilu River, a large tributary in the Kasai basin, and Monsembula Iyaba and Stiassny (2013) for rivers in the Salonga National Park in the Cuvette Centrale. While most species have not previously been reported from the Mfimi basin, for the great majority of these we believe this likely to be the result of lack of collection data rather than a true reflection of limited species' ranges. That said, there are a few instances where our collections have significantly extended the known range of species into the Mfimi. Examples include the distichodontid *Neolebias philippei* (Fig. 7H), the alestid *Rhabdalestes aeratis* (Fig. 8I) and the cichlid *Congochromis sabinae* (Fig 11A), each previously confirmed as present only in distant localities within the Cuvette Centrale and/or the Congo River main channel. In addition to the putative new species discussed previously (*Marcusenius* aff. *angolensis* (Fig. 4A), *Phenacogrammus* sp. 1 (Fig. 4B), *Phenacogrammus* sp. 2 (Fig. 4C), *Enteromius* cf. *hulstaerti* (Fig. 4D) and *Synodontis* sp."Tshe"(Fig. 4F), a single endemic to the Mfimi-Lukenie system (exclusive of Lake Mai Ndombe) is recognized here, the mochokid *Synodontis robertsi* Poll, 1974, previously known only from collections made in the Lukenie River at Ilombe, but now collected in the present study in the main channel of the Mfimi (Table 2). Of the 30 or so species previously reported from Lake Mai Ndombe, likely a significant underestimate of real diversity in the lake (Thieme et al. 2005), six are currently considered lake endemics: *Amphilius opisthophthalmus* Boulenger, 1919, *Nannothrissa stewarti* Poll & Roberts, 1976, *Chrysichthys praecox* Hardman & Stiassny, 2008, *Hemichromis cerasogaster* (Boulenger, 1899), *Nanochromis transvestitus* Stewart & Roberts, 1984, and *Nanochromis wickleri* Schliewen & Stiassny, 2006. Of these we have collected series of *Nannothrissa stewarti* (Fig. 6J) in the Tshe River, and *Nanochromis transvestitus* (Fig. 11D, E) in the main channel of the Mfimi, thus extending their distributions beyond the confines of the lake. Most additional species recorded from the Mfimi (and Lake Mai Ndombe) are widely distributed throughout the Congo basin, with occurrences reported from localities across the Cuvette Centrale, the Kasai basin, and often also from the main channel of the Congo River. However, perhaps the most striking finding of the present study is the observation that the number of species present in the Mfimi, but otherwise known only from the Cuvette Centrale and/or the main channel of the Congo River, and occasionally the Kwa, clearly exceeds those shared exclusively between the Mfimi and the Kasai basin (exclusive of the Kwa). We count 37 such species (highlighted in bold underscore in Table 2), a number that contrasts starkly with the apparent absence of a single species that occurs uniquely within the Kasai basin and the Mfimi and/or Lake Mai Ndombe. Some examples of the former include the notopterid *Papyrocranus congoensis*, the mormyrid *Stomatorhinus kununguensis*, the gonorhynchiform *Phractolaemus ansorgii*, the hepsetid *Hepsetus microlepis*, the alestids *Alestopetersius hilgendorfi*, *A. leopoldianus*, *A. nigropterus*, *Brycinus bimaculatus*, and *Clupeocharax schoutedeni,* the distichodontids *Distichodus decemmaculatus*, *D. altus*, *Ichthyborus ornatus*, *Monostichodus lootensi* and *M. mesmaekersti*, the claroteid *Chrysichthys punctatus* and *Notoglanidium macrostoma*, the clariids *Clariallabes centralis* and *Dolichallabes microphthalmus*, the malapterurid *Paradoxoglanis caudovittatus*, the procatopodid *Congocharax brichardi*, the anabantids *Microctenopoma ansorgii* and *M. fasciolatum*, and the cichlids *Pelmatochromis nigrofasciatus* and *Pterochromis congicus*, among many others (Table 2).

In view of this strong signal of ichthyofaunal affinity, we suggest that the conventional view—that the Mfimi-Lukenie-Lake Mai Ndombe is faunistically part of the Kasai basin—is erroneous, and that the system should instead be considered part of the Cuvette Centrale. While the Mfimi-Lukenie, and consequently Lake Mai Ndombe, are today connected with the Kasai via an outflow at the Kwa-Kasai junction, numerous connections with the rivers and swamps of the Cuvette Centrale to the north persist. Affluents of Lake Mai Ndombe and the Molibampe flow from extensive flooded forests and swamps reaching deep into the Cuvette Centrale and provide numerous corridors for faunal exchange, particularly during years of heavy flooding (Matthes 1964). While the geo-hydrological history of the central Congo

is poorly understood, the formation of the current configuration of the Congo basin is generally considered to have occurred around the Miocene-Pliocene transition with the final capture of a large inland lake, or lakes, that then occupied much of the present-day Cuvette Centrale (Beadle 1981). It has been posited that lakes Mai Ndombe and Tumba may represent remnants of that former interior lake, although geological support for that hypothesis remains controversial (Thieme et al. 2005; Runge 2007). Despite these uncertainties, it is tempting to hypothesize that the limits of the present day Mfimi-Lukenie-Lake Mai Ndombe system may demarcate the southern boundary of that ancient Paleo-Congo lake.

Acknowledgements

We gratefully acknowledge the local authorities and fishing communities of Nioki and surrounding villages for their invaluable assistance and enthusiastic support for this project. For the issuance of collection and exportation permits we are grateful to the Ministère de l'Agriculture et du Développement Rural, Sécretariat Général de l'Agriculture, Pêche et Elevage, Direction des Pêches and the Université de Kinshasa, Cabinet du Recteur, Democratic Republic of Congo. Our thanks to the collections staff at the AMNH (Radford Arrindell, Tom Vigliotta, and Chloe Lewis), and to the following colleagues for their taxonomic input: Anton Lamboj (*Congochromis*), Tom Vigliotta (*Synodontis*), Jouke van der Zee (*Aphyosemion*, *Epiplatys*), Max Bernt (*Clarias*, *Dolichallabes*), and John Sullivan (*Marcusenius*). Financial support for this study was provided by the US National Science Foundation (DEB 1655227) and the AMNH Axelrod Research curatorship.

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